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# BOEING VERTOL COMPANY

P.O. BOX 16858

PHILADELPHIA, PENNSYLVANIA 19142 CODE IDENT. NO. 77272 D210-11168-3-Volume 3 of 13 NUMBER VOL-3

TITLE CH-46 COMPOSITE ROTOR BLADE FLIGHT STRESS SURVEY DATA PLOTTED FORWARD ROTOR BLADE CHORD, TORSION Volume II. AND ABSOLUTE LOADS ORIGINAL RELEASE DATE . FOR THE RELEASE DATE OF

SUBSEQUENT REVISIONS, SEE THE REVISION SHEET. FOR LIMITATIONS IMPOSED ON THE DISTRIBUTION AND USE OF INFORMATION CONTAINED IN THIS DOCUMENT, SEE THE LIMITATIONS SHEET.

MODEL	CH-46	CONTRACT	N00019-75-C-0396
ISSUE NO		_ ISSUED TO:	

R./Aiello

1978

DATE 11/22/78 PREPARED BY DATE 1-26-79 APPROVED BY D. Mandy DATE 12-4-78 APPROVED BY Ntale a Famille DATE 2-23-79 APPROVED BY

K. White/W. Weller

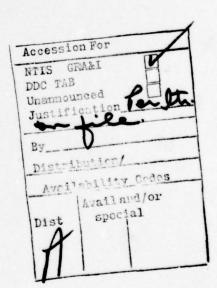
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FORM 46280 (5/73)

SHEET 1

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LIMITATIONS



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FORM 46281 (3/67)

THE BOEING COMPANY

NUMBER D210-11168-3 Vol. 3

REVISIONS									
LTR	DESCRI	PTION			DATE	APPROVAL			

				ACTIVE	SHEE	T RECORD	. ,				
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197				227	2			257			
198				228				258			
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202				232				262			
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PREPARED BY: CHECKED BY:

J. Bendo

8/28/78

D210-11168-3 NUMBER Vol. 3 REV LTR MODEL NO.

THE BOEING COMPANY DATE:

8/28/

### ABSTRACT

This report volume presents plotted forward rotor blade chord, torsion and absolute loads measured during the CH-46 Composite Rotor Blade Flight Stress Survey.

#### KEYWORDS

CH-46E
Composite
Rotor Blade
Flight Stress Survey
Alternating and Steady Loads

MODEL NO.



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	GW = 20800  lbs., C.G. = 9.7" Aft	198 .
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	GW = 24300 lbs., C.G. = 13.2" Fwd	241
	GW = 24300  lbs., C.G. = Aft (4.4" Fwd)	248
	GW = 24300 lbs., C.G. = 1.5" Aft (Ext. Cargo)	255
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	GW = 20800 lbs., C.G. = 22.4" Fwd	257
	GW = 20800 lbs., C.G. = 9.7" Aft	266
	GW = 24300 lbs., C.G. = 13.2" Fwd	275
	GW = 24300 lbs., C.G. = Aft (4.4" Fwd)	282
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	GW = 20800 lbs., C.G. = 9.7" Aft	300
	GW = 24300 lbs., C.G. = 13.2" Fwd	309
	GW = 24300  lbs., C.G. = Aft (4.4" Fwd)	316
	GW = 24300 lbs., C.G. = 1.5" Aft (Ext. Cargo)	323

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#### REFERENCES

- Vertol Report D210-11168-1 "CH-46 Composite Rotor Blade Flight Test Qualification Test Plan" March 30, 1977
- Vertol Report D210-11168-2 "CH-46 Composite Rotor Blade Flight Test Report" May 15, 1978
- Boeing Vertol Report D210-11168-3 Volume 1 of 13, CH-46 Composite Rotor Blade Flight Stress Survey Data
- 4. Boeing Vertol Report D210-11168-3 Volume 9 of 13, CH-46 Composite Rotor Blade Flight Stress Survey Data, Tabulated Forward Blade Angles and Loads

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#### 1. INTRODUCTION

A flight stress survey was conducted on a CH-46 helicopter with A02R1702 composite rotor blades. The test was conducted in accordance with Paragraphs 4.3.2 and 4.7 of Reference 1. General test description and pilot comments are included in Reference 2.

The tests were conducted at the Boeing Vertol Flight Test Facility at Ridley Township, Pennsylvania, during the period of June 1977 through November 1977.

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### 2. SUMMARY

A flight stress survey and structural demonstration was conducted on the #1 CH-46E Helicopter, BuNo. 153372 (S/N 2268).

The components under test were the A02R1702 composite rotor blades and the A02R1710 blade socket.

This volume contains measured steady and alternating forward rotor blade chord, torsion and aboslute loads plotted versus true airspeed. The same data is tabulated in Volume 9.

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#### DATA PRESENTATION

This report contains measured steady and alternating forward blade chord, torsion and absolute loads. The data is presented as plots versus true airspeed. The steady and alternating values are plotted separately and appear together as two plots per page for various level flight and maneuver conditions. The load levels shown represent the maximum alternating load cycle occurring during the particular flight condition. This same data is tabulated in Volume 9.

Detailed flight condition parameters and a complete tabulated summary of maneuvers for each flight can be found in Volume 1 of this report.



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V DATE:

8/31/78

### 3.1 Gage Identification and Index

Data plot indexing, strain gage identification and instrumentation code information for data presented in this volume are as follows:

DATA C	CODE	MEASUREMENT	
			DATA
ACTIVE	SPARE	NAME UNITS	PAGE #
41760	61760	Fwd Blade Chord Bending Sta. 50. (IN-LB)	21
41770	61770	Fwd Blade T.E. Tension Sta. 88. (IN-LB)	55
41780	61780	Fwd Blade T.E. Tension Sta. 159. (IN-LB)	89
41790	61790	Fwd Blade Torsion Bending Sta. 52.(IN-LB)	123
41800	61800	Fwd Blade Torsion Bending Sta.138 (IN-LB)	157
41810	61810	Fwd Blade Torsion Bending Sta.242.(IN-LB)	188 ·
41820	•	Fwd Blade Absolute Top L.E. (µIN/IN) Sta. 73.	222
41840	-	Fwd Blade Absolute Top L.E. (µIN/IN) Sta. 240.	256
41860	61860	Fwd Blade Extension Link Chord (IN-LB) Bending	290

## NOTES:

- 1. A complete description of the instrumentation for this stress survey can be found in Volume 1.
- A flight by flight summary of operative gages can be found in Reference 2.
- 3. The spare gages were utilized when the active gages proved inoperable.

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## 3.2 Sign Convention

The following table summarizes the sign convention adhered to for the gages presented in this volume.

GAGE MEASUREMENT NAME	(+) POLARITY CONDITION
Fwd Blade Chord Bending Sta. 50.	Blade Leading
Fwd Blade T.E. Tension Sta. 88.	Blade Leading
Fwd Blade T.E. Tension Sta. 159.	Blade Leading
Fwd Blade Torsion Bending Sta. 52.	L.E. Up
Fwd Blade Torsion Bending Sta. 138.	L.E. Up
Fwd Blade Torsion Bending Sta. 242.	
Fwd Blade Absolute Top L.E. Sta. 73	
Fwd Blade Absolute Top L.E. Sta. 24	
Fwd Blade Extension Link Chord Bend	

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#### 3.3 Plot Format

The data plots have been grouped by common flight conditions and maneuvers and are presented in the order outlined by the data plot format table included on the next page.

For identification of data plots the plot code number in the right hand column of the table is printed on each corresponding plot chart.

Please note that many symbols are used more than once.



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## PLOT FORMAT

GROSS WEIGHT LBS.	C.G. IN.	HD FT.	RPM	CONDITION	PLOT CODE NO.
20800	22.4"Fwd	2000	264	Level Flt.	- 1
		14000		Level Flt.	- 2
		A11		Pullups(PWR ON&OFF), P.P.D. Rec.	-11
				Turns (PWR ON&OFF)	-15
				Control Rev.'s (PWR ON)	-19
				Control Rev.'s (PWR OFF), Flares	-23
	+	+		P.P.D.'s, Autorotation	-27
	9.7"Aft-	2000		Level Flt.	- 3
		6000		Level Flt.	- 4
		14000	_ †	Level Flt.	- 5
		6000	248	Level Flt.	-10
		All	264	Pullups(PWR ON&OFF),P.P.D. Rec.	-12
				Turns (PWR ON&OFF)	-16
				Control Rev.'s (PWR ON)	-20
				Control Rev.'s(PWR OFF), Spiral Desc., Flares	-24
*	+	*		P.P.D.'s Autorotation	-28
24300	13.2"Fwd	2000		Level Flt.	- 6
		8000		Level Flt.	- 7
		A11		Pullups(PWR ON&OFF)	-13
				Turns (PWR ON&OFF)	-17
				Control Rev.'s (PWR ON)	-21
				Spiral Descent, Flares	-25
+	-	+		P.P.D.'s, P.P.D. Rec., Autorotation	-29

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# Plot Format (Continued)

GROSS WEIGHT LBS.	C.G. IN.	HD FT.	RPM	CONDITION	PLOT CODE NO.
24300	4.4"Fwd	2000	264	Level Flt.	- 8
.		8000		Level Flt.	- 9
		A11		Pullups (PWR ON&OFF)	-14
				Turns (PWR ON&OFF)	-18
**				Control Rev.'s (PWR ON)	-22
				Spiral Descent, Flares	-26
	+	+		P.P.D.'s, Autorotation	-30
+	1.5"Aft	2000	1	Level Flight (External Cargo)	-35

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PLOTTED DATA

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THE BUEING COMPANY DATE:

ATE: 8/28/78

4.1 Forward Blade Chord Bending Station 50.

D210-11168-3
NUMBER FVOLUME 3
REV LTR

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A1750 - FIND ROTTOR CHORD HEND STR SO

GM220809LS C9222-41N FNO
H052000FT RPM2264 # FLT 114 LVL FLT # FLT 115 LVL FLT # FLT 161 LVL FLT # FLT 162 LVL FLT TRUE AIRSPEED IN KNOTS 100. FTRE TRUE RIRSPEED IN MNOTE FORM 52300 (10/71)

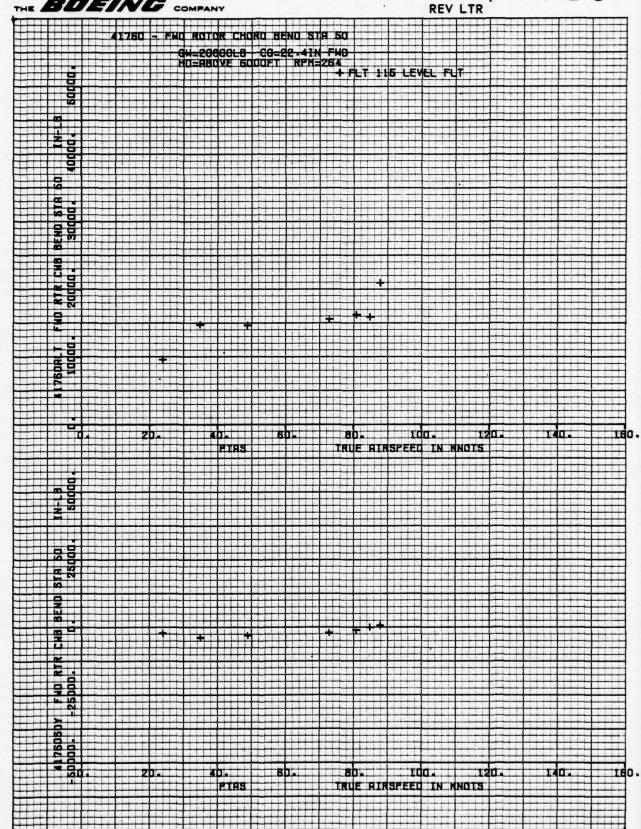
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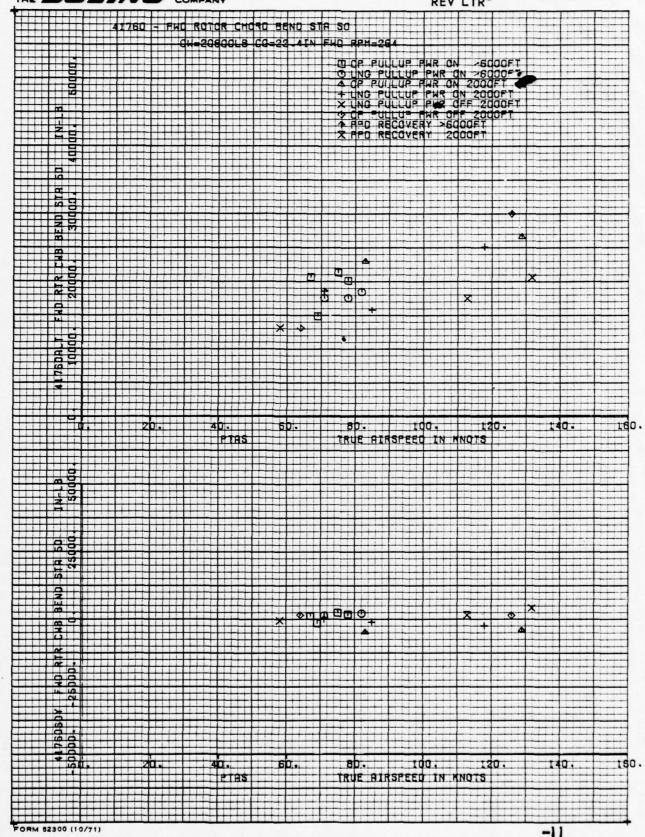
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FORM 52300 (10/71)



NUMBER VOLUME 3

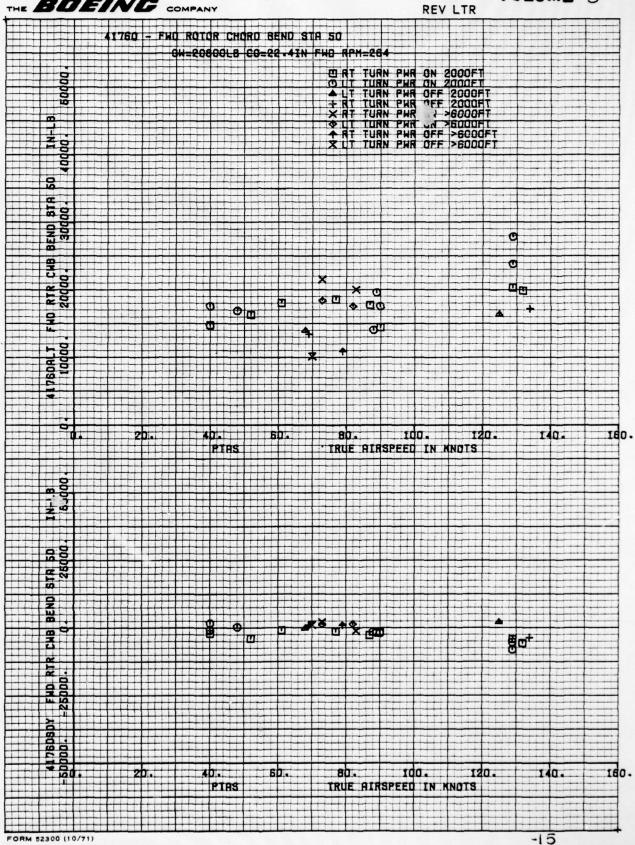
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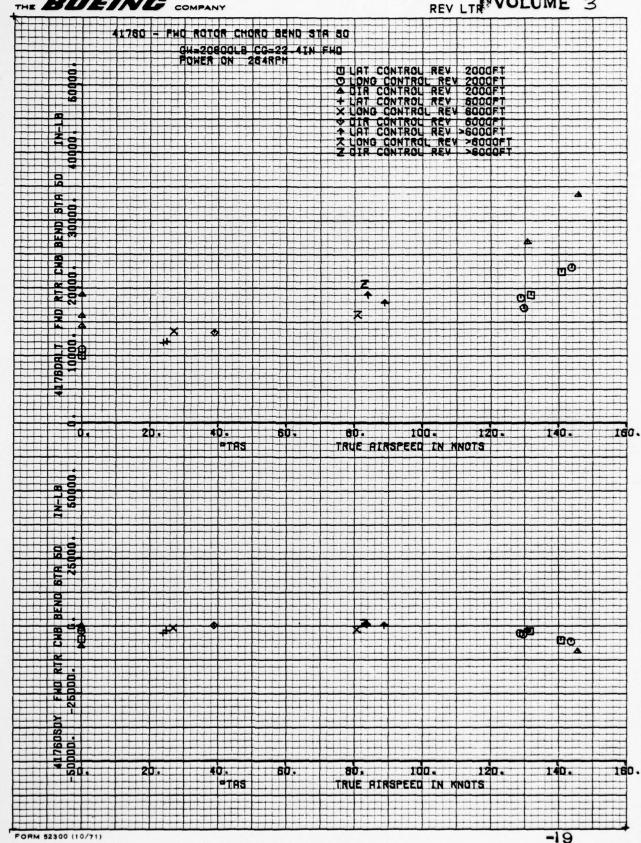


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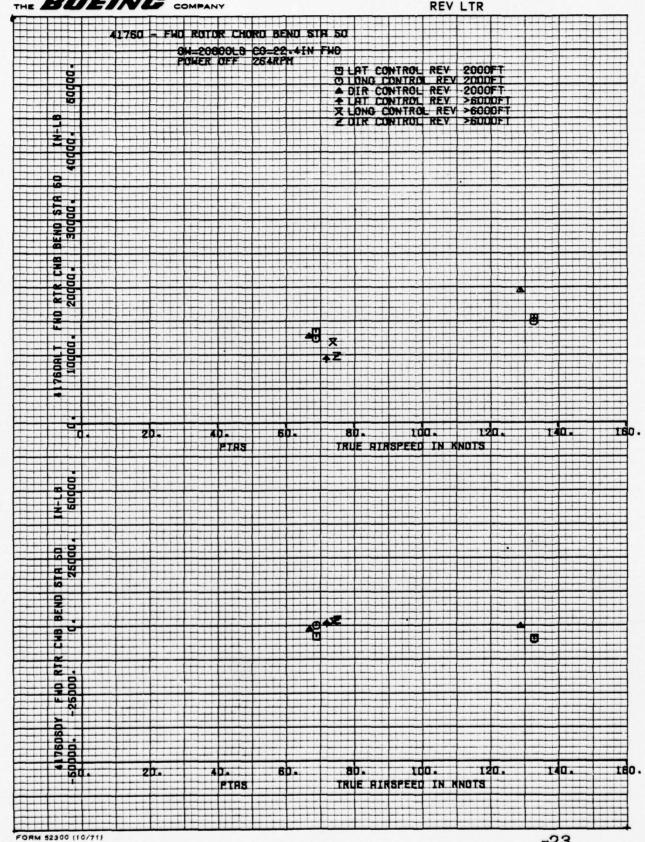
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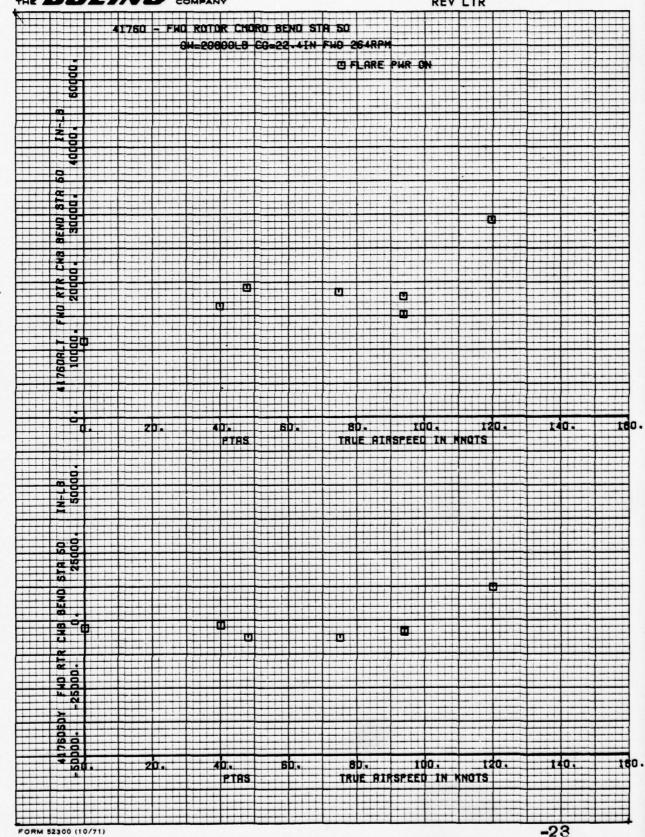




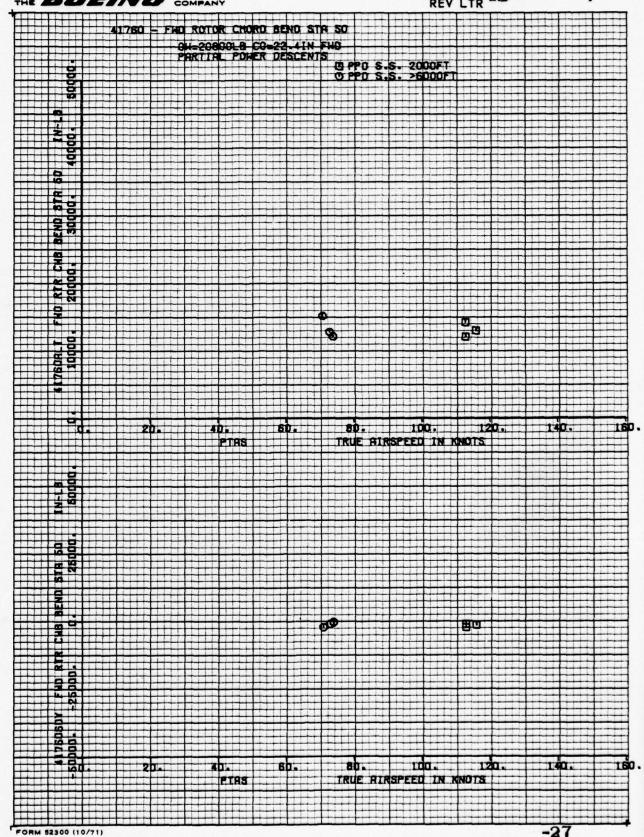
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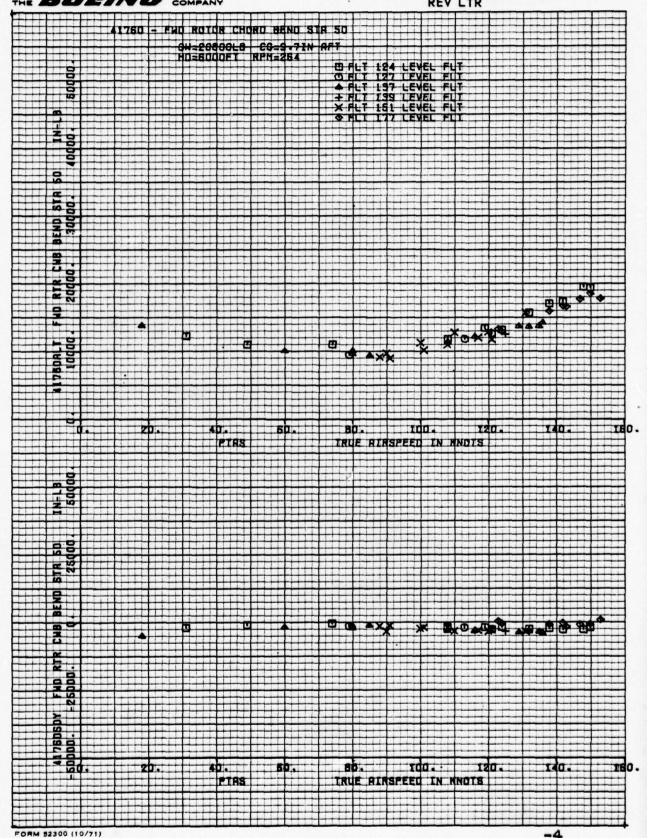
CH-20800LB CO-22.4IN FHO
SUTOROTATIONAL HANEUVER
SUTOROTATION STEROY >6000FT
SO RUTOROTATION STEROY >0000FT 1760 - FUD ROTOR CHORD BEND STA 50 9 PTAS TRUE ALRSPEED IN MNOTS TRUE RIRSPEED IN MNOTS PTAS

FORM 52300 (10/71)

-3

THE BOEING COMPANY **REV LTR** 1780 - FWO ROTOR CHORD BEND STA SO ON-20006LB CO-9.7IN AFT 20000. ę 0 80. Ido. 120. 140. IBO -PTHS TRUE AIRSPEED IN KNOTS 品 AD. BD. 100. 140. 180. PTRS TRUE AIRSPEED IN KNOTS

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1780 - FWO ROTOR CHORD BEND STA 50 GH-29800L8 C8-9.7IN RCT FO=>6000FT RPM=254 OFLT 124 LEVEL FLT STA OG OG OG RTR CMB 20000, 4175DR\_T 0 IAO. TRUE RIRSPEED IN KNOTS PTAS 140. IED. TRUE RIRSPEED IN KNOTS PTAS FORM 52300 (10/71)

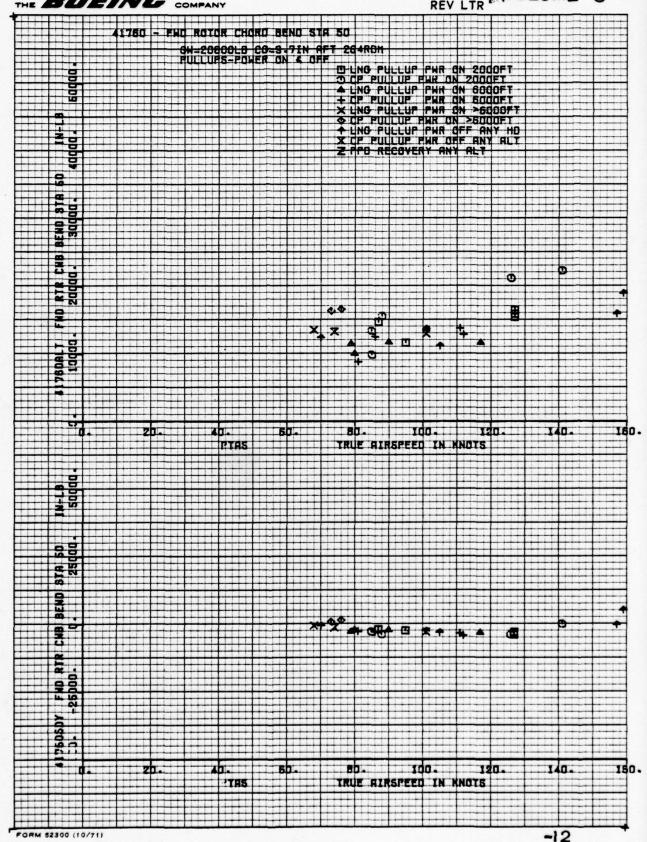
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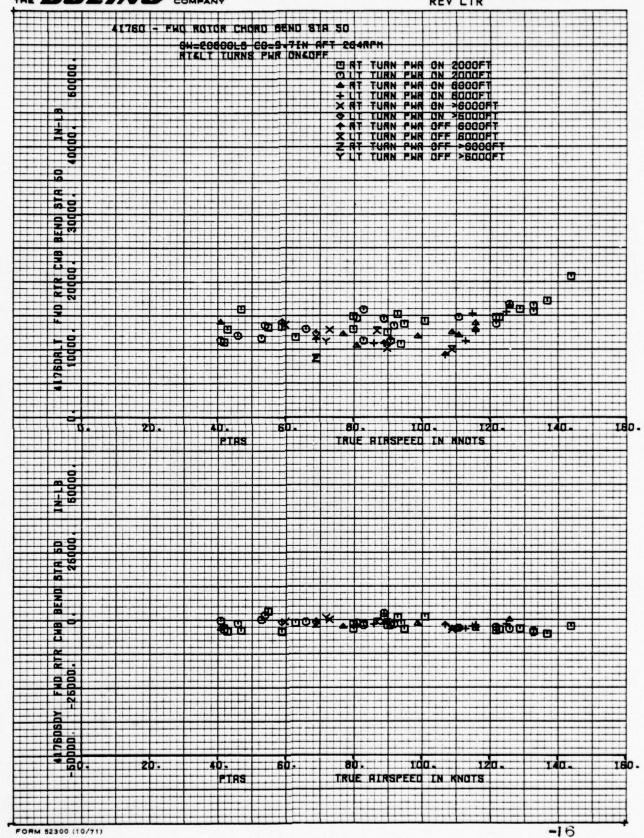
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NUMBER VOLUME 3

THE BOEING COMPANY REV LTR 1760 - FHO ROTOR CHORD BEND STA 50 20000LB9.7EN AFT 246 RPH B LEVEL FLIGHT 6000 FT 0 80. 100. 120. LEO. FTAS TRUE HIRSPEED IN KNOTS 0 100. 120. 150 PTAS TRUE AIRSPEED IN KNOTS

FORM 52300 (10/71)

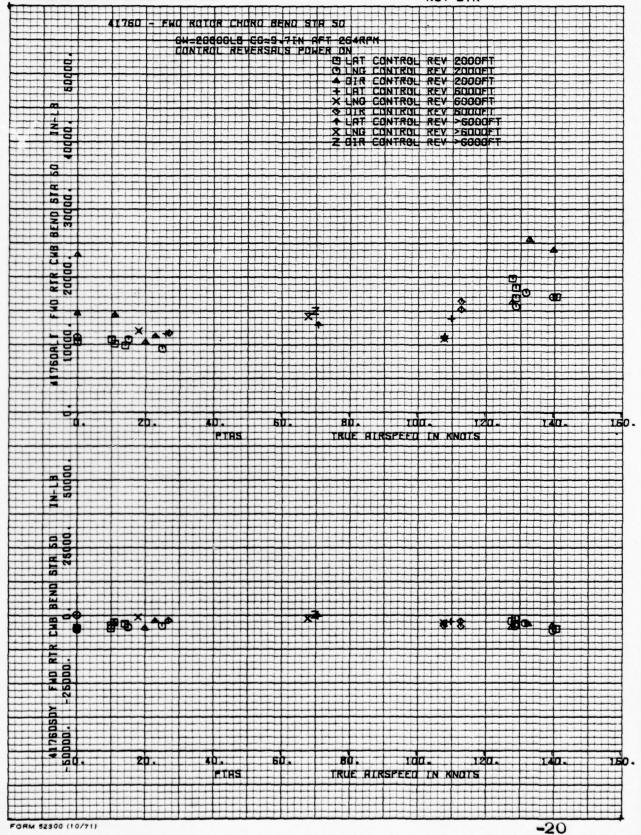




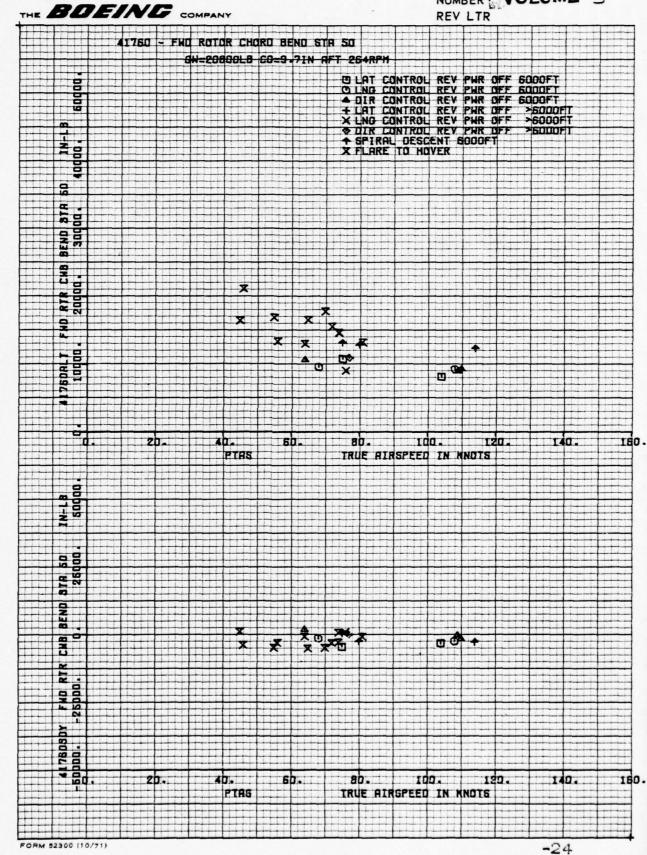
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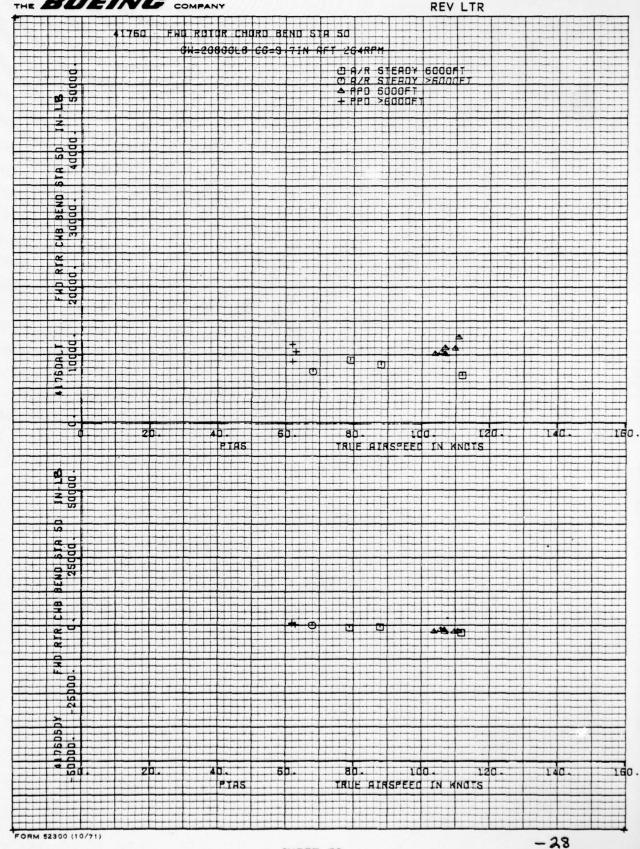
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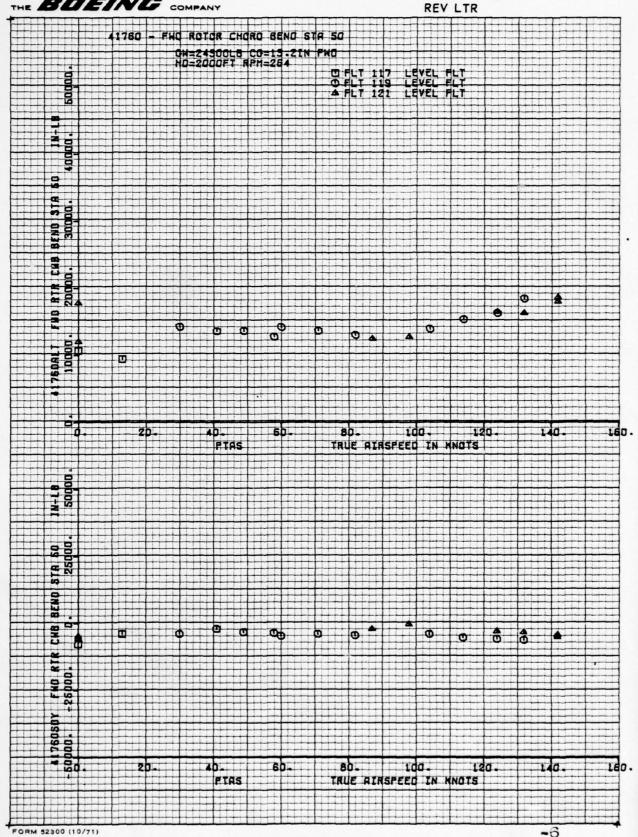
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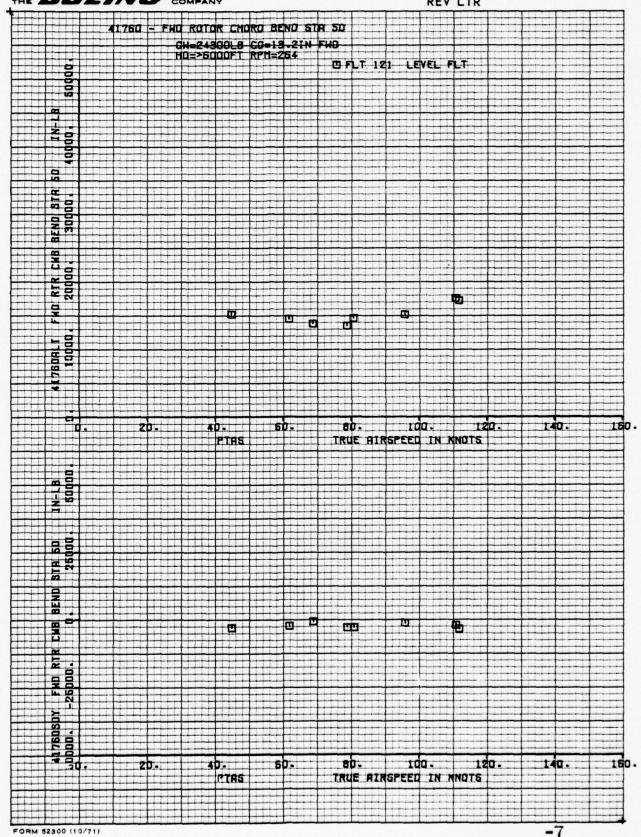


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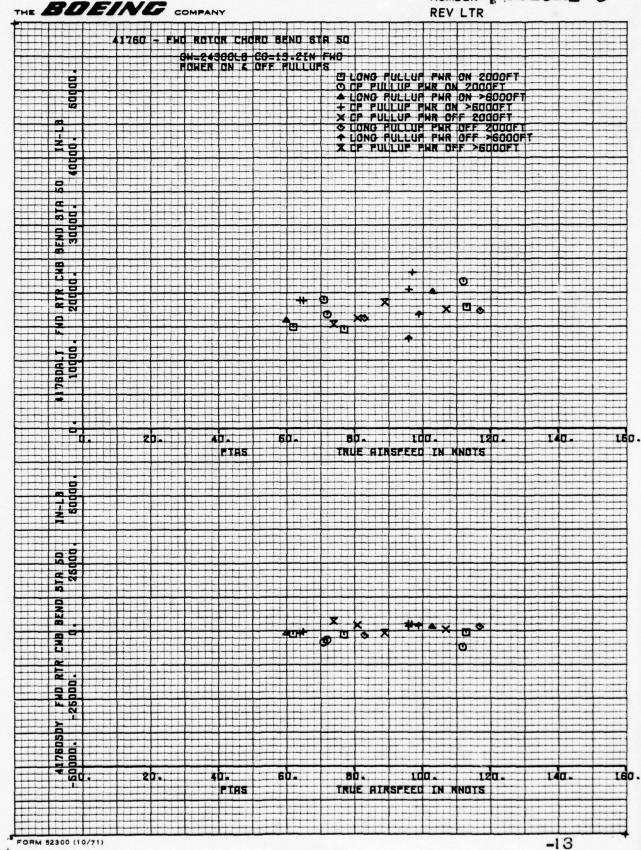


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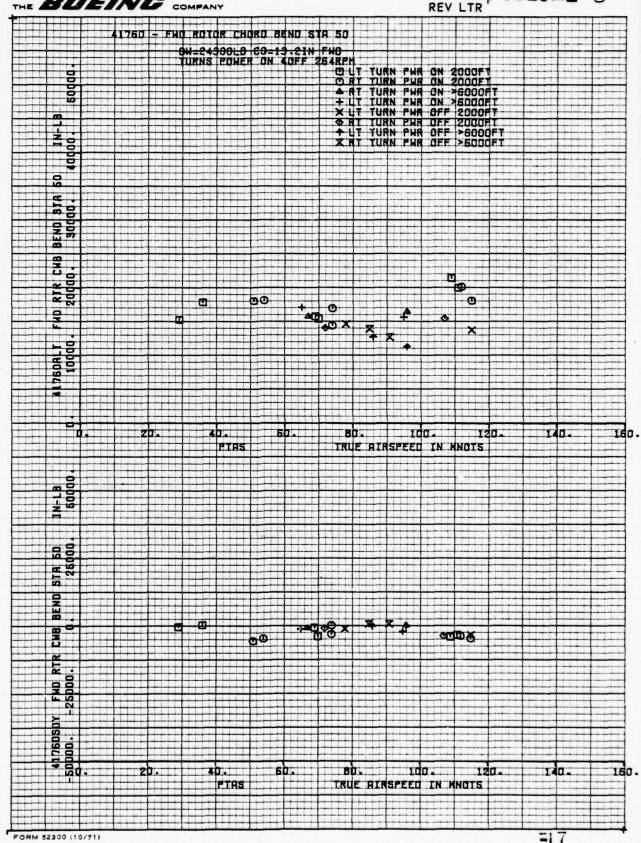


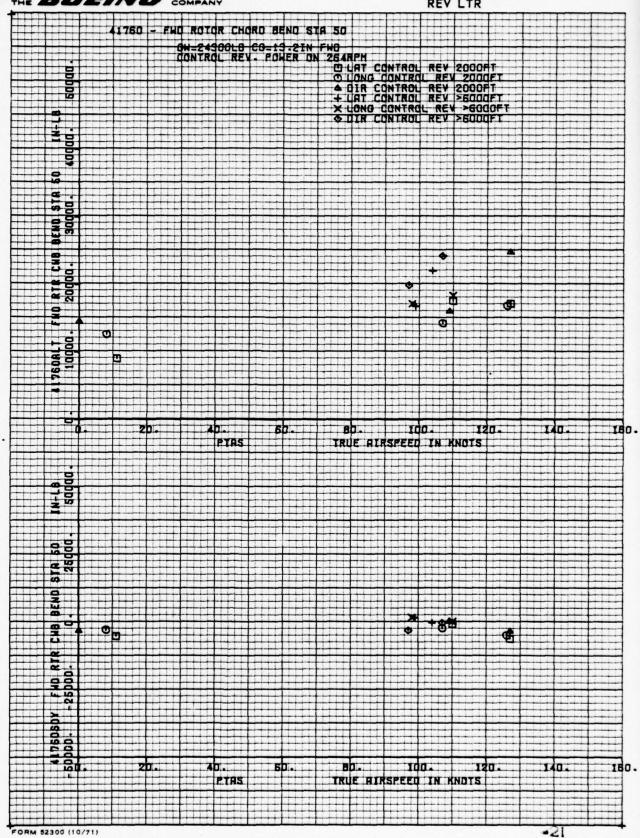


D210-11168-3
NUMBER VOLUME 3



SHEET 42



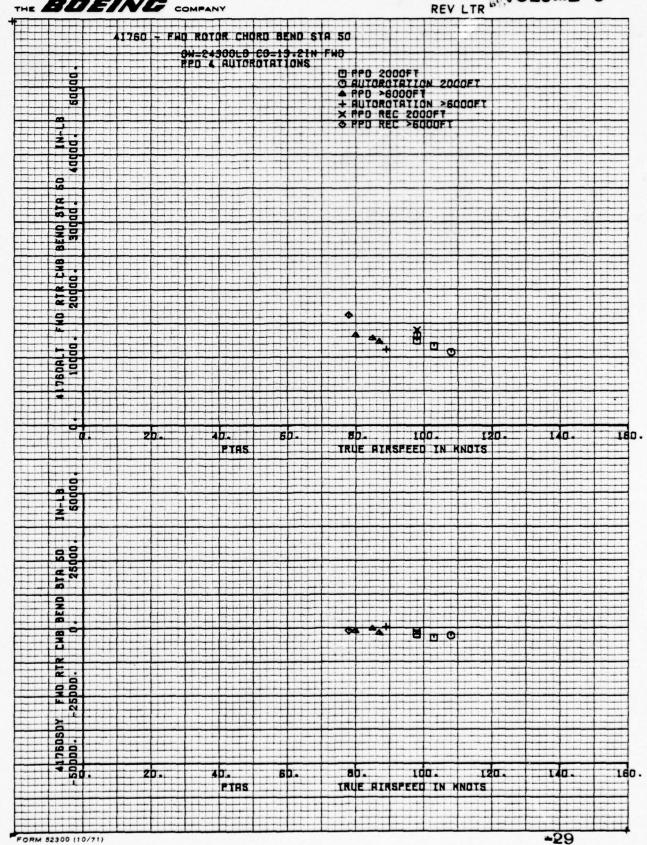


D210-11168-3 NUMBER FVOLUME 3

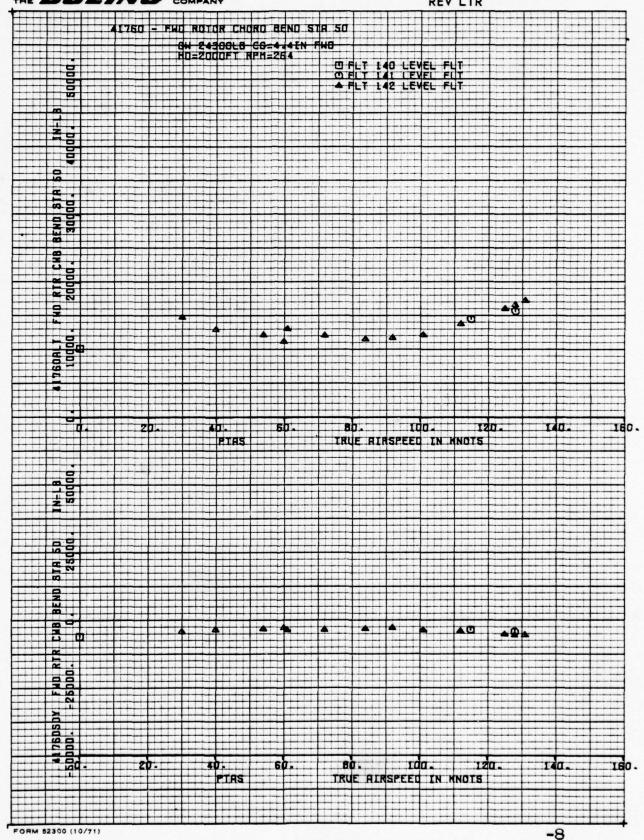
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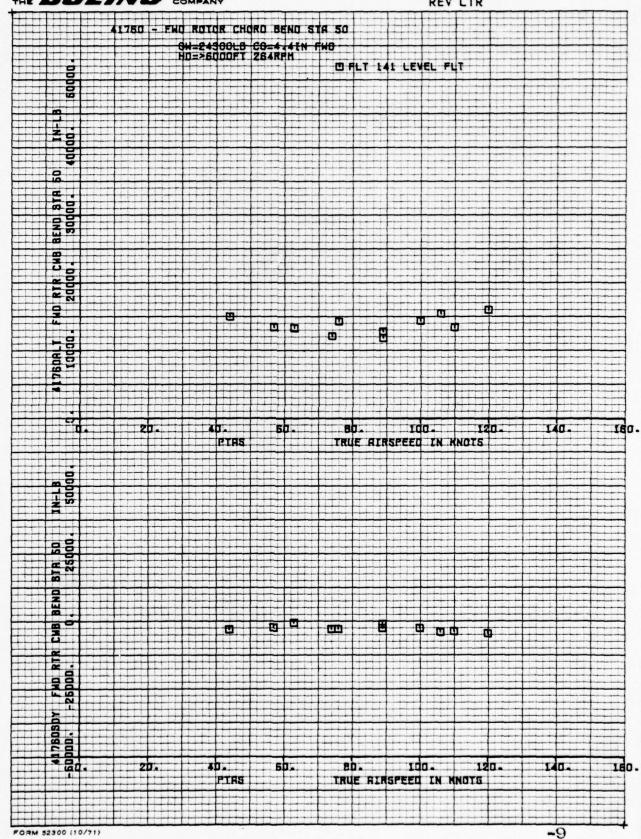
THE BOEING COMPANY REV LTR 1760 - FWO ROTOR CHORD BEND STR 50 0H=24300LB CO=13.2IN FHD 264RPF O FLARE O SPIRAL DESCENT RTR CMB 20000. m m PTRS TRUE PIRSPEED IN MNOTS STR 50 25000. 0 40. 160. TRUE AIRSPEED IN KNOTS PTAS

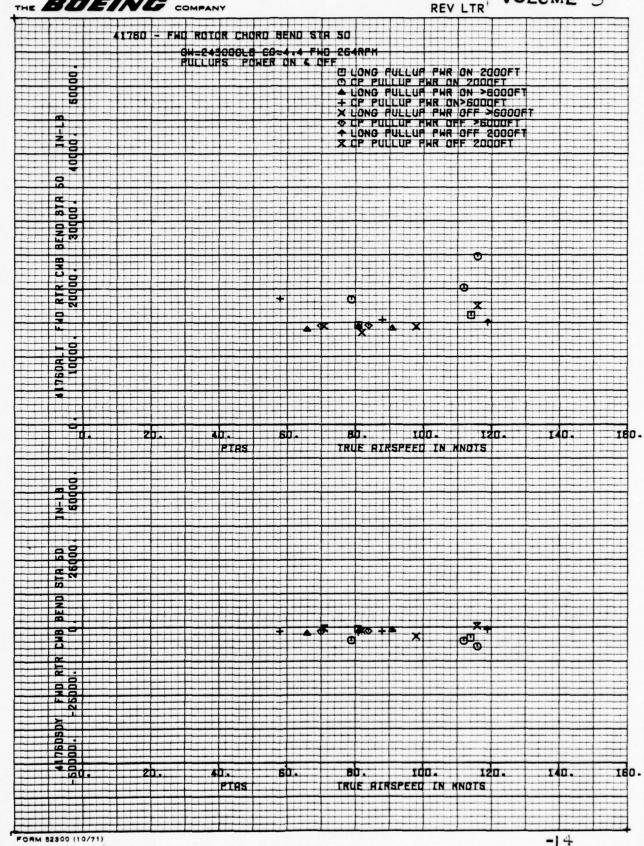
FORM 52300 (10/71)



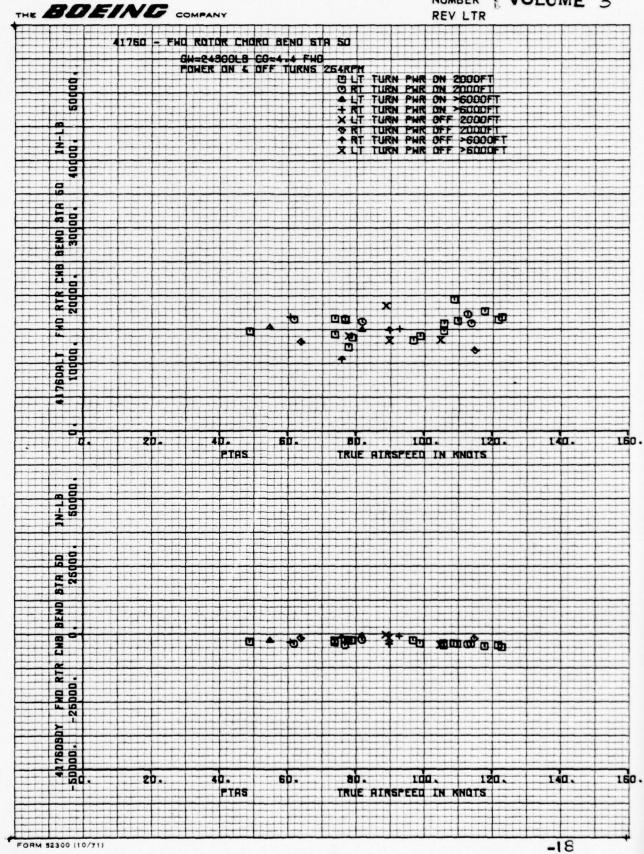
D210-11168-3
NUMBER VOLUME 3
REV LTR







D210-11168-3
NUMBER VOLUME 3



NUMBER TVOLUME 3

THE BOEING COMPANY REV LTR D ROTOR CHORD BEND 515

CH=243COL8 CO=4 4IN FUD
FOHER ON CONTROL REVERSALS

D LAT CONT REV 2000FT

O UDING CONT REV 2000FT

4 (R CONT REV 2000FT

+ LAT CONT REV >6000FT

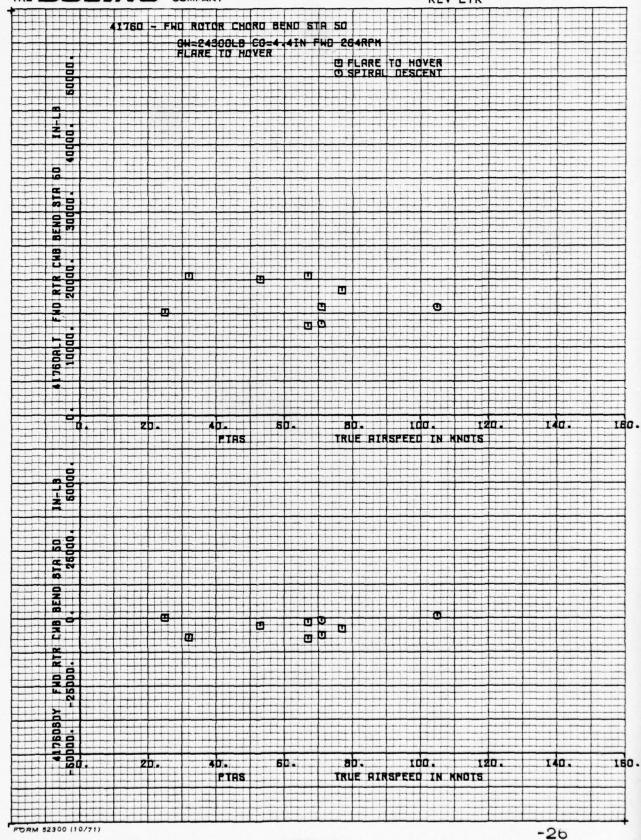
X LONG CONT REV >6000FT

D IR CONT REV >6000FT 1760 - FWO ROTOR CHORD BEND STA SO 50000 RTR CMB 4 0 99 0 9 40. 100. 120. BO. | 140. 160. TRUE AIRSPEED IN KNOTS PTAS D U 40. 80. 100. 140. 50. IBO. PTAS TRUE AIRSPEED IN KNOTS -22 ORM 52300 (10/71)

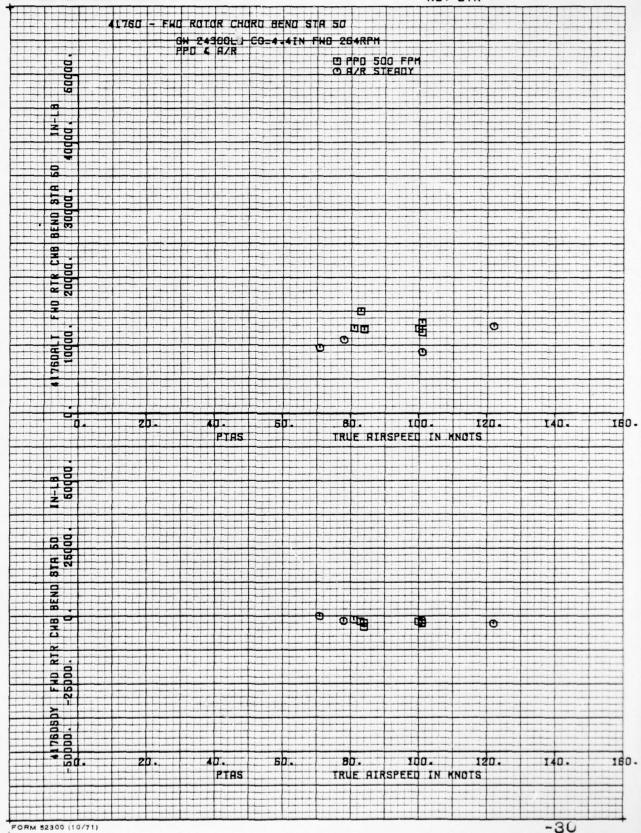
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D210-11168-3
NUMBER WVOLUME 3
REV LTR

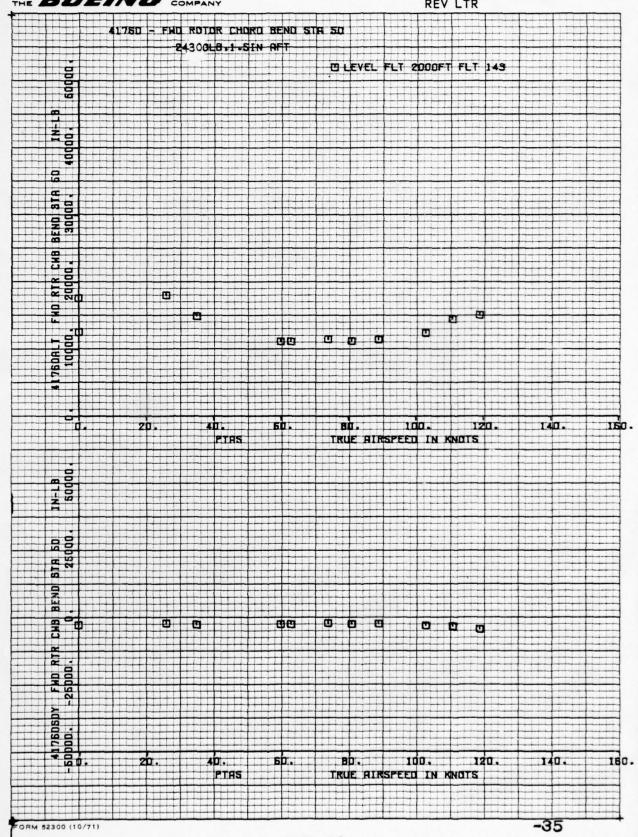




NUMBER VOLUME 3



D210-11168-3 NUMBER FVOLUME 3



PREPARED BY: J. Bendo

CHECKED BY:

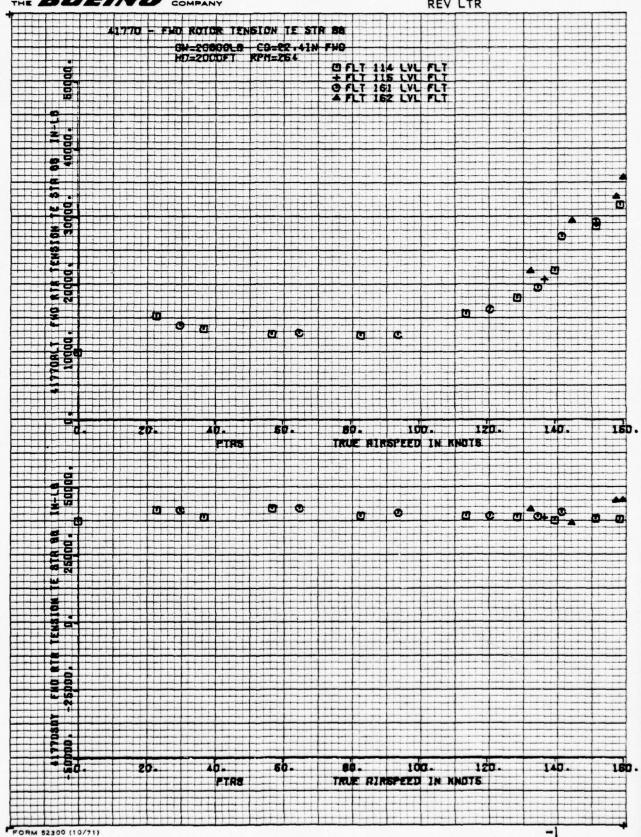
NUMBER D210-11168-3 REV LTR Volume 3 MODEL NO.

THE BOEING COMPANY

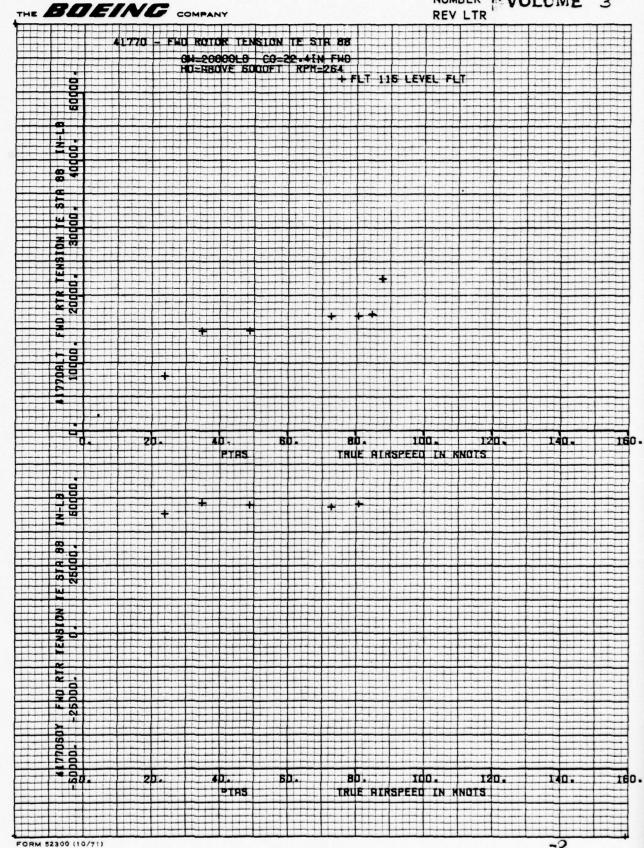
DATE:

8/28/78

4.2 Forward Blade T.E. Tension Station 88.

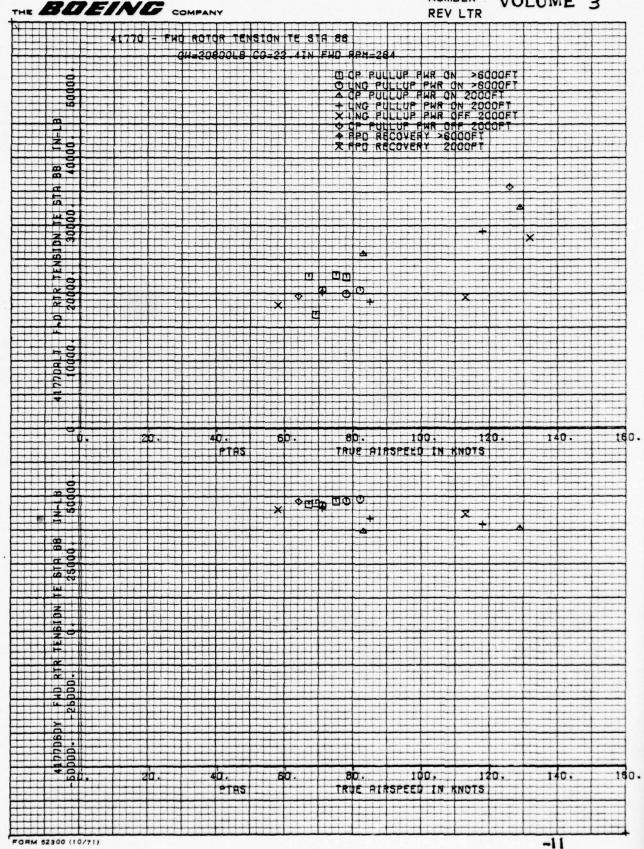


NUMBER VOLUME 3



D210-11168-3 4 VOLUME 3

NUMBER



NUMBER

THE BOEING COMPANY REV LTR 41770 - FWO ROTOR TENSION TE STR 88 GH-2000GLB CO-22-4IN FHO RPM-264 © RT TURN PHR ON 2000FT
O LT TURN PHR ON 2000FT

LT TURN PHR OFF 2000FT

+ RT TURN PHR OFF 2000FT

X RT TURN PHR ON >6000FT

C LT TURN PHR ON >5000FT

↑ RT TURN PHR OFF >6000FT

X LT TURN PHR OFF >6000FT 60000 Œ 8 0 20000 . 30000 **\*** 🗹 ДΦ 140. 160 -80. AD. PTAS TRUE ALRSPEED IN MNOTS 0 100 80. Ido. 140. . da 160 . TRUE RIRSPEED IN KNOTS PTAS FORM 52300 (10/71) -15

-19

FORM 52300 (10/71)

D210-11168-3 VOLUME 3

140.

-23

160 .

NUMBER THE BOEING COMPANY REV LTR 1770 - FUO ROTOR TENSION TE STA 88 ON-20000L8 CO-22.4IN FWD POWER OFF 264RPH BLAT CONTROL REV 2000FT
O LONG CONTROL REV 2000FT
DIR CONTROL REV 2000FT
LAT CONTROL REV >6000FT
X LONG CONTROL REV >6000FT
Z DIR CONTROL REV >6000FT 88 400 RTR TENSION TE 20000. 30000 X .Z 40. 100. 150. TRUE AIRSPEED IN KNOTS PTAS AU O STA 88 25000. -25000.

80.

rda.

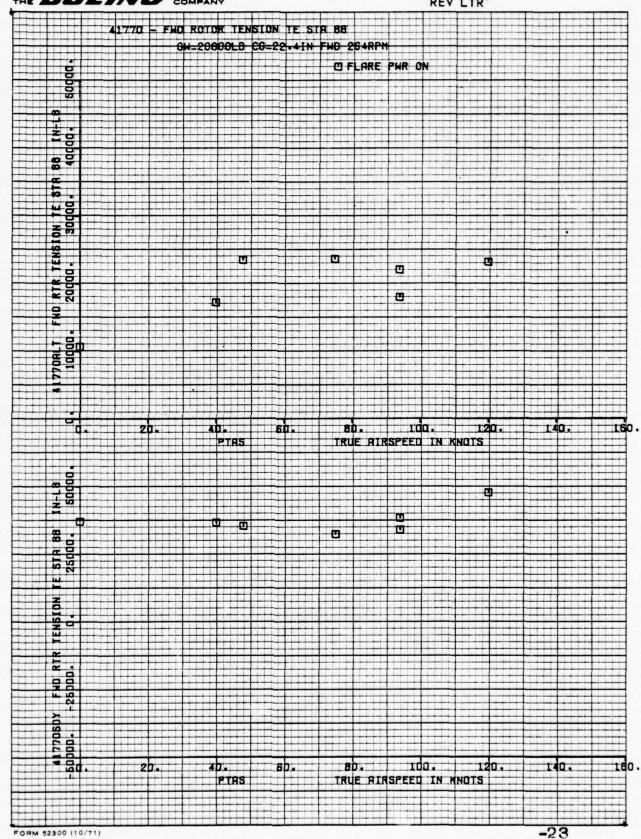
TRUE RINSPEED IN MNOTS

60.

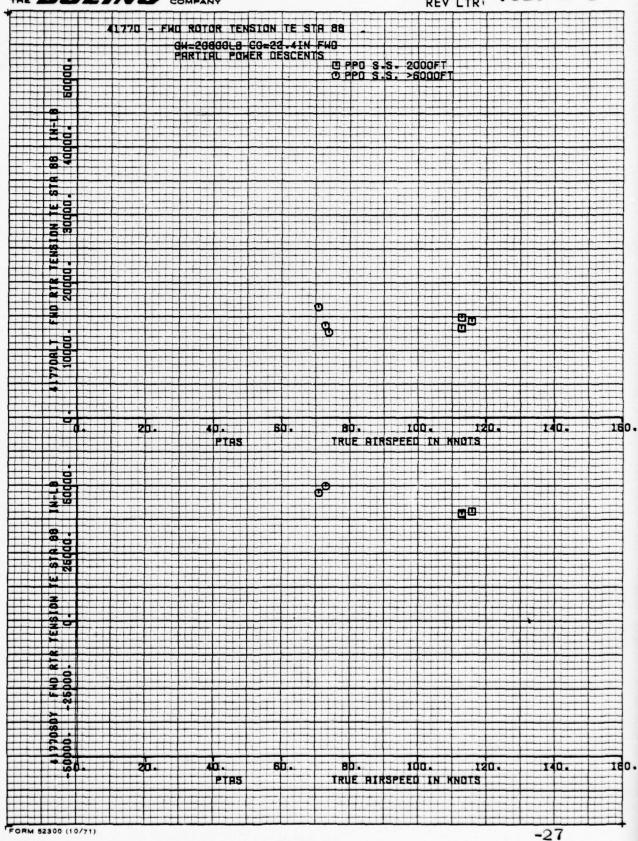
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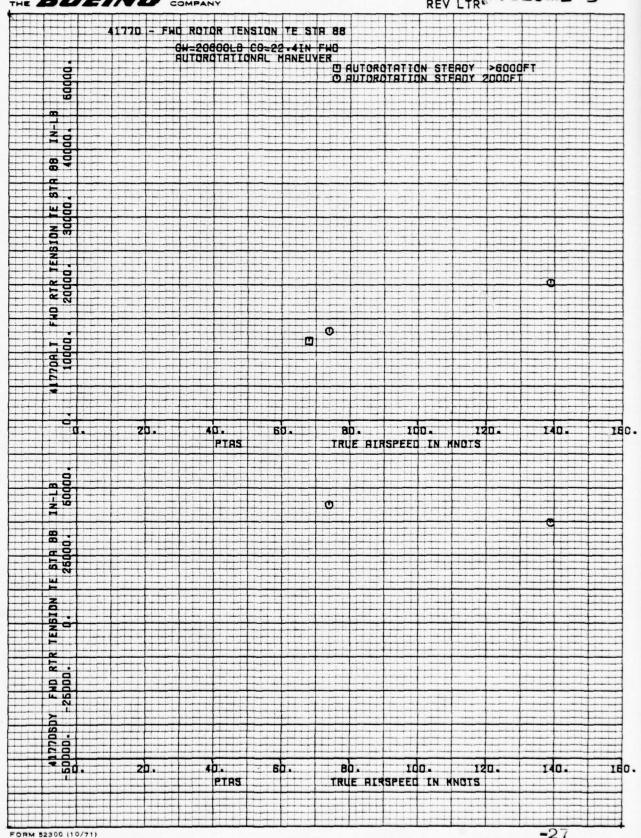
FORM 52300 (10/71)

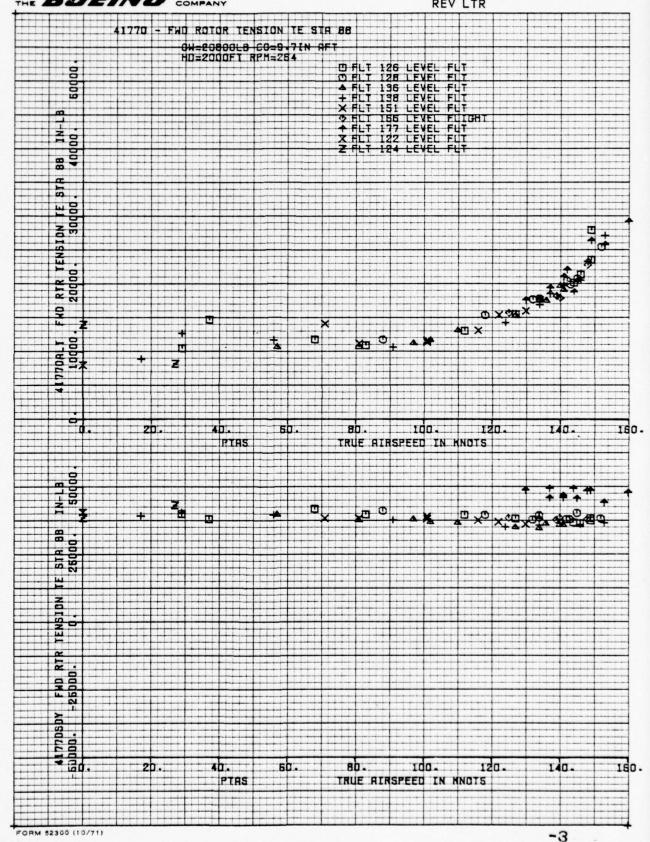
PTAS

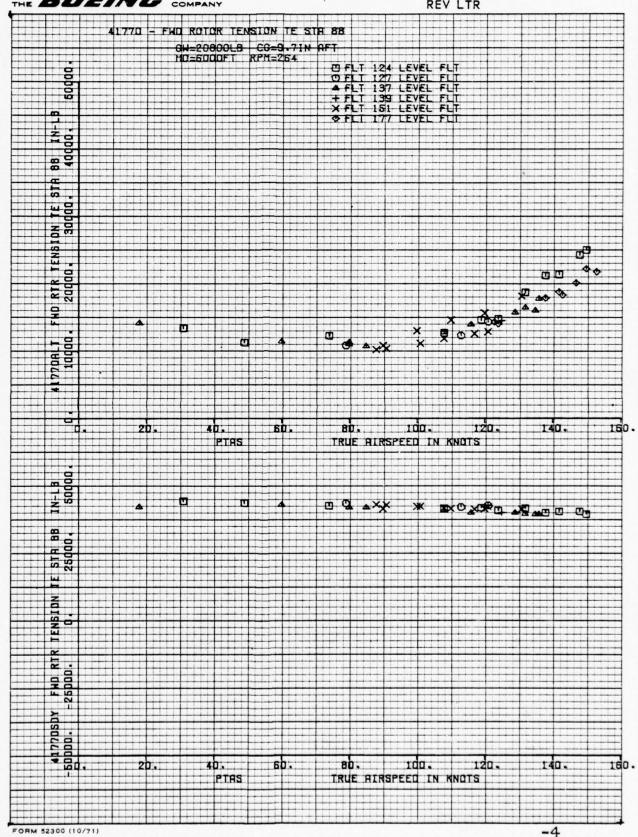


D210-11168-3 NUMBER VOLUME 3









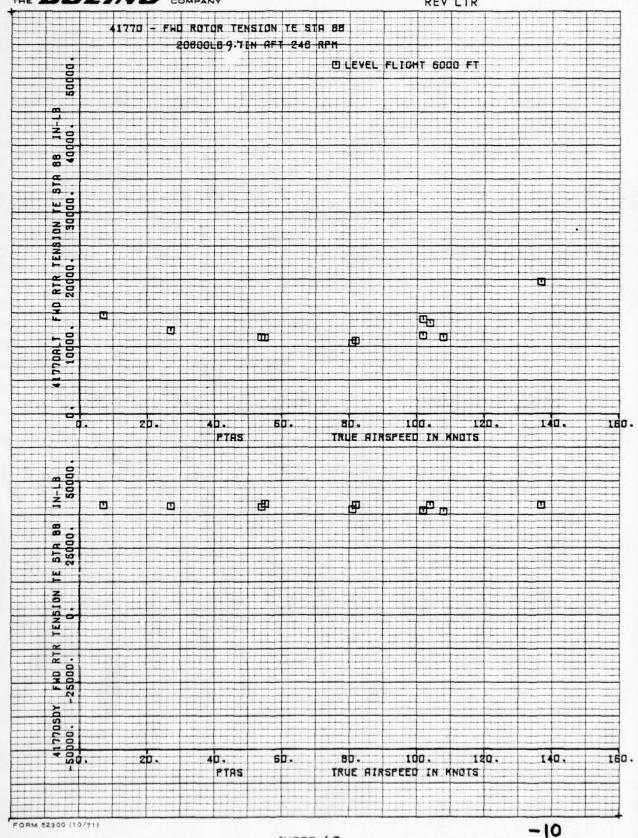
D210-11168-3
NUMBER EVOLUME 3

-5

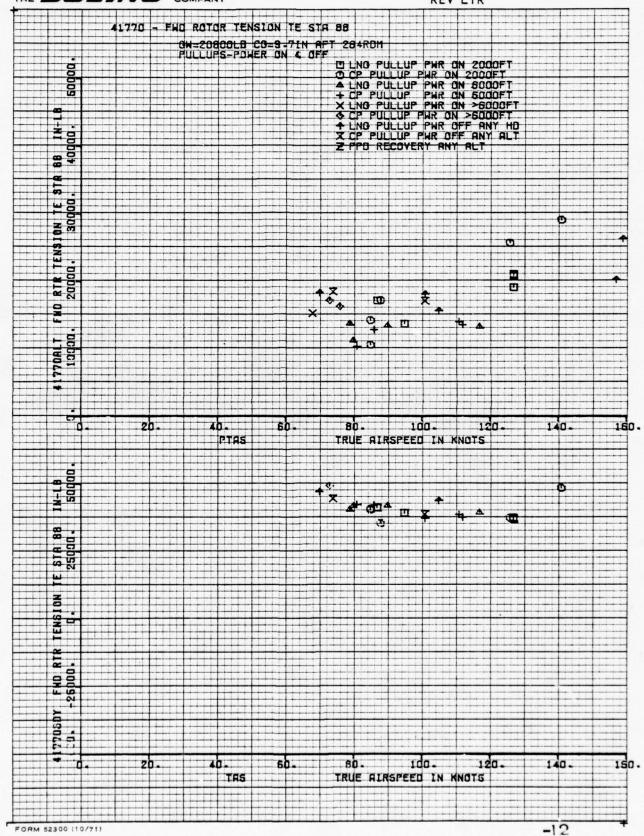
THE BOEING COMPANY REV LTR 1770 - FWD ROTOR TENSION TE STA 88 DIFLT 124 LEVEL FUT 57 F RTR TENSIBN TE 0 120. 160. PTAS TRUE HIRSPEED IN MNOTS STA 88 25000. Ido. 140. 80. 160 . PTAS TRUE AIRSPEED IN KNOTS

FORM 52300 (10/71)

D210-11168-3 NUMBER FVOLUME 3 REV LTR



NUMBER REV LTR



VOLUME 3 NUMBER **REV LTR** 

THE BOEING COMPANY FUO ROTOR TENSION TE STA 88 SH-20800LB CO-9 7IN AFT 284RPM © RT TURN PHR ON 2000FT

© LIT TURN PHR ON 2000FT

ART TURN PHR ON 6000FT

+ LIT TURN PHR ON 6000FT

X RT TURN PHR ON 5000FT

© LIT TURN PHR ON 5000FT

X LIT TURN PHR OFF 6000FT

X LIT TURN PHR OFF 6000FT

X LIT TURN PHR OFF 5000FT

Z RT TURN PHR OFF 5000FT

Y LIT TURN PHR OFF 5000FT 40000 TN-L BTR 30000. ZOCOO. m 0 0 80. 100. 140 . 160-PTRS TRUE AIRSPEED IN KNOTS IN-LB 50000 O D DO STA 88 25000. IBO. PTAS TRUE AIRSPEED IN KNOTS -16 FORM 52300 (10/71)

D210-11168-3 NUMBER VOLUME 3

-20

THE BOEING COMPANY REV LTR 1770 - FUO ROTOR TENSION TE STA 88 GH=20800L8 CO=9.7IN RFT 264RPM

DUNTROL REVERSALS POWER ON

D LAT CONTROL REV 2000FT

O LING CONTROL REV 2000FT

+ LAT CONTROL REV 6000FT

X LNG CONTROL REV 6000FT

O UR CONTROL REV 6000FT

A GIR CONTROL REV 6000FT

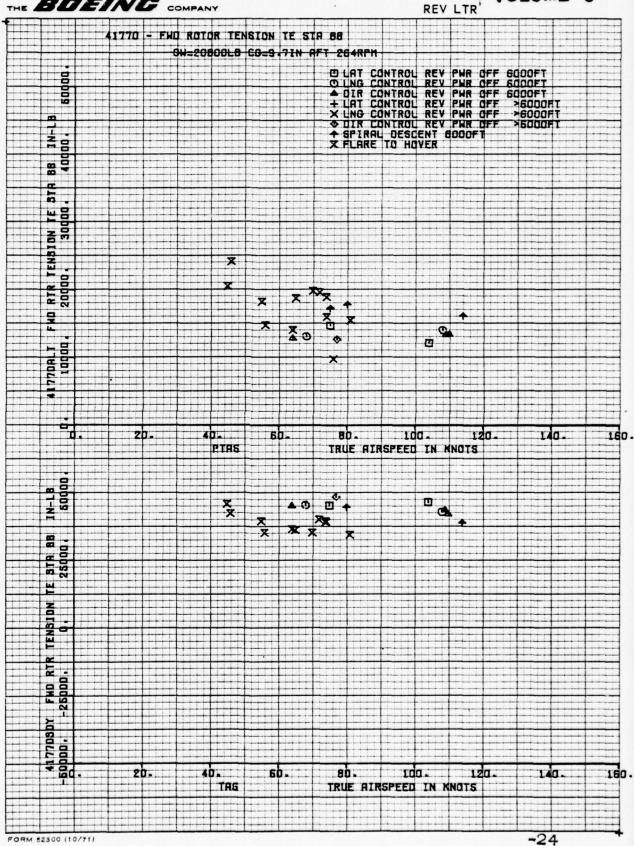
X LNG CONTROL REV 5000FT

A LAT CONTROL REV >6000FT

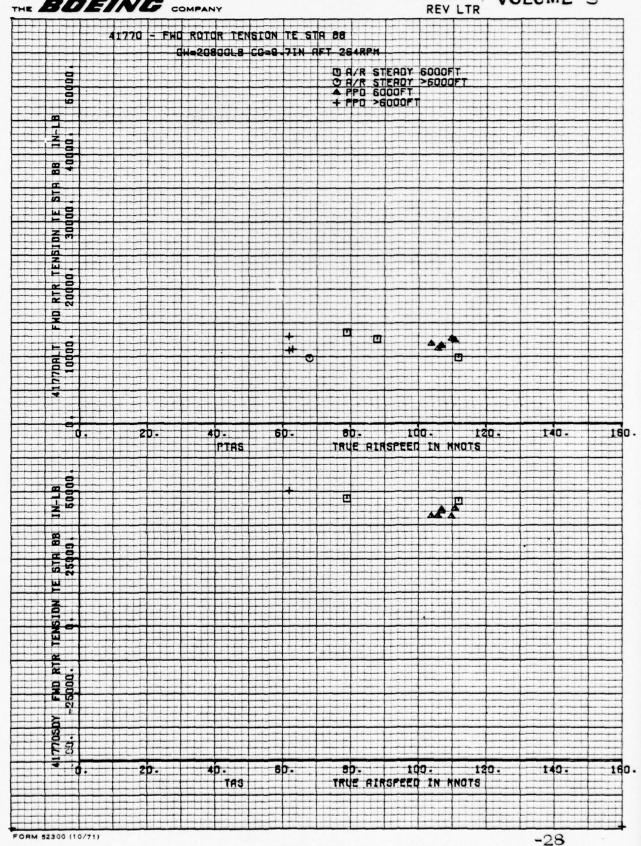
X LNG CONTROL REV >6000FT

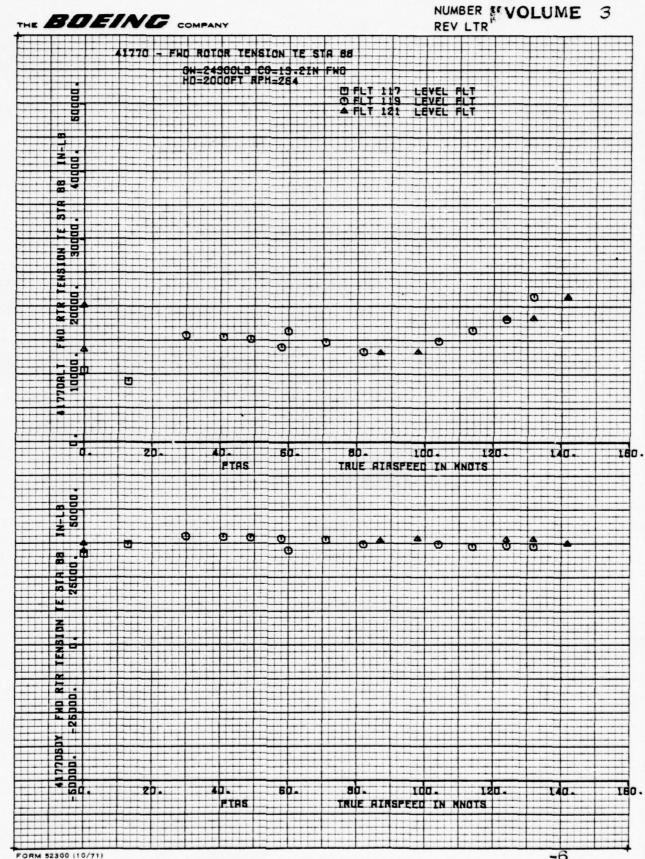
Z DIR CONTROL REV >6000FT 88 51 ¥ 8 m Ox 0 80. \_\_\_\_\_1da . \_\_\_\_ 160. TRUE RIRSPEED IN MNOTS FIRS 20000 20000 STR 88 25000. 60. 80. 1do. 120. 160 . \*0. PTAS TRUE RIRSPEED IN MNOTS

FORM 52300 (10/71)



D210-11168-3 NUMBER ; VOLUME 3





140.

-7

160.

NUMBER | VOLUME 3

THE BOEING COMPANY REV LTR 41770 - FHO ROTOR TENSION TE STA 88 GH=24900L8 CG=13.2IN FHO HD=>5000FT RPM=254 OFLT 121 LEVEL FLT STA . 발음 발음 Zagaa. 3aga 0 0 1770A.T FW 0 AD. 100. 140. 160. 8D. TRUE HIRSPEED IN MNDTS PTRS IN-LB S0000 0 0 0 TE STA 88 25000.

80-

100.

TRUE AIRSPEED IN MNOTS

120.

50.

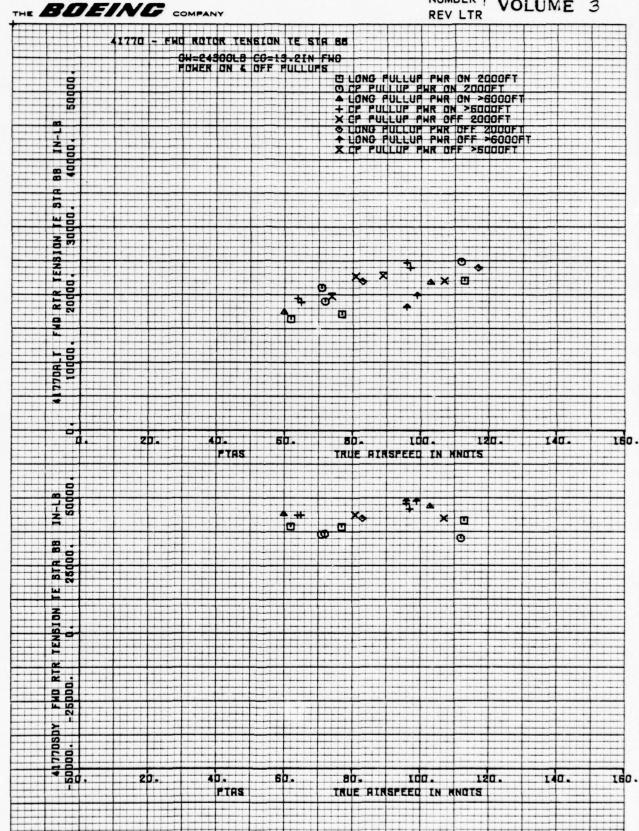
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FORM 52300 (10/71)

PTAS

D210-11168=3 \*
NUMBER | VOLUME 3

-13



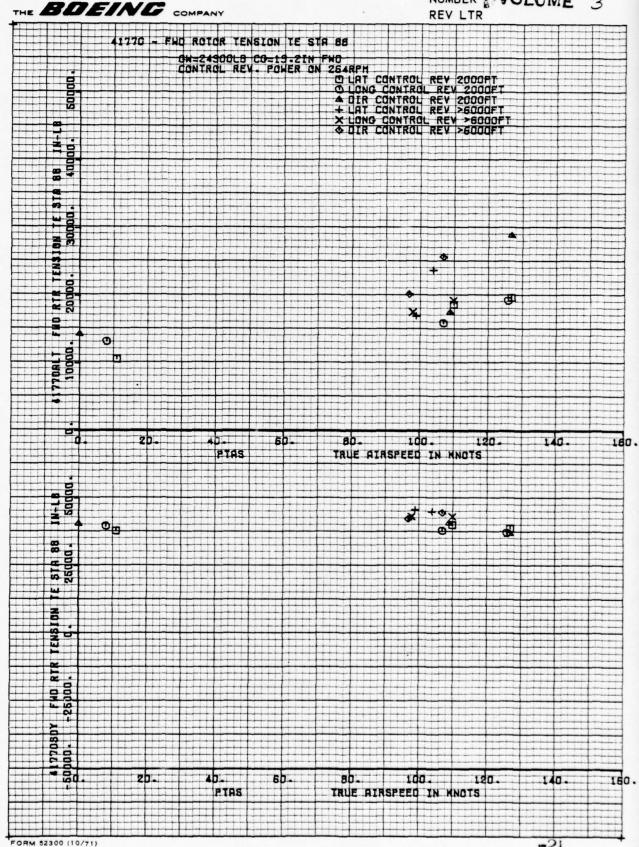
FORM 52300 (10/71)

-17

NUMBER **REV LTR** 

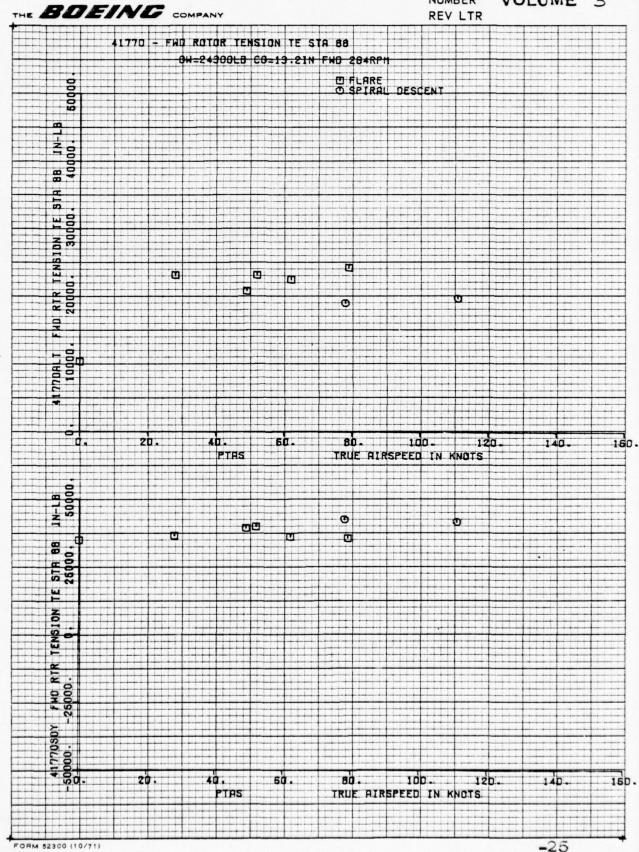
THE BOEING COMPANY 41770 - FUO ROTOR TENSION TE STA 88 OW-24300LB CO-13.2IN FWD ARPM
DLT TURN PWR ON 2000FT
ORT TURN PWR ON 2000FT
ART TURN PWR ON >6000FT
+ LT TURN PWR ON >6000FT
X LT TURN PWR OFF 2000FT
ORT TURN PWR OFF 2000FT
ALT TURN PWR OFF >6000FT
X RT TURN PWR OFF >6000FT
X RT TURN PWR OFF >6000FT 60000 88 18 RT 20C 4 0 00 × TODALT TOGGO AD. 5D. 140. ISO. TRUE RIRSPEED IN KNOTS PTAS • 0 578 BB 25000. TENBIDA 80. 100. 140. 160. TRUE AIRSPEED IN KNOTS PTAS

FORM 52300 (10/71)



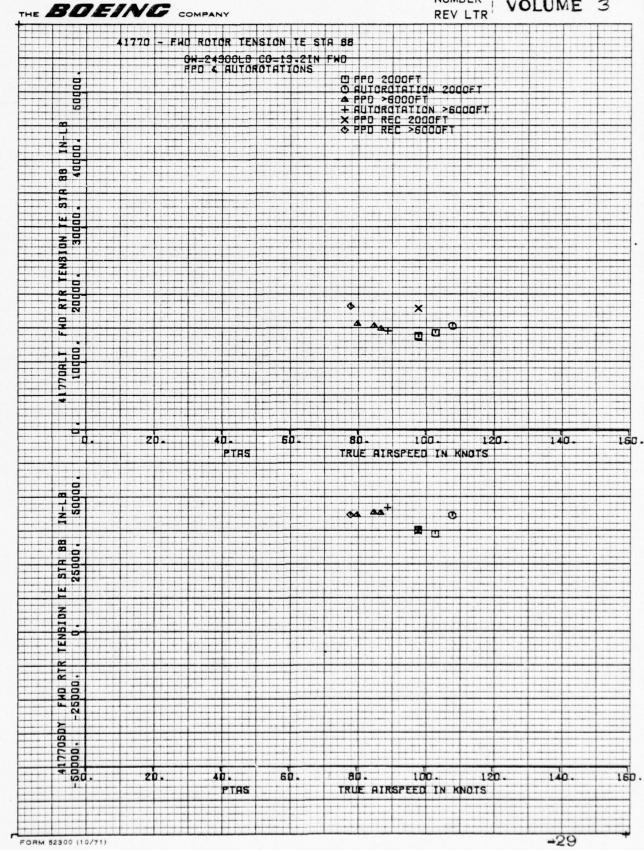
D210-11168-3 VOLUME 3

NUMBER REV LTR



D210-11168-3 VOLUME 3

NUMBER



D210-11168-3

-8

NUMBER | VOLUME 3

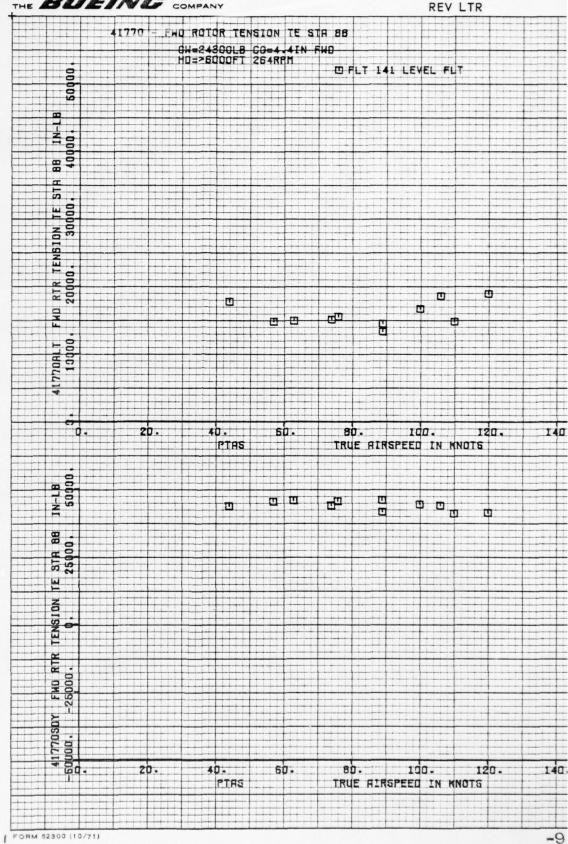
THE BUEING COMPANY REV LTR 1770 - FWO ROTOR TENSION TE STA 88 GH 24300LB CG=4.4EN FHO HD=2000FT RPM=264 OFLT 140 LEVEL FLT OFLT 141 LEVEL FLT A FLT 142 LEVEL FLT 88 400 STA aa. FAD RIK TENSION TE 80. 140-160. PTRS TRUE RIRSPEED IN KNOTS IN-LB 44 80. 100-140-160. PTAS TRUE RIRSPEED IN MNOTS

FORM 52300 (10/71)

D210-111 NUMBER | VOLUME

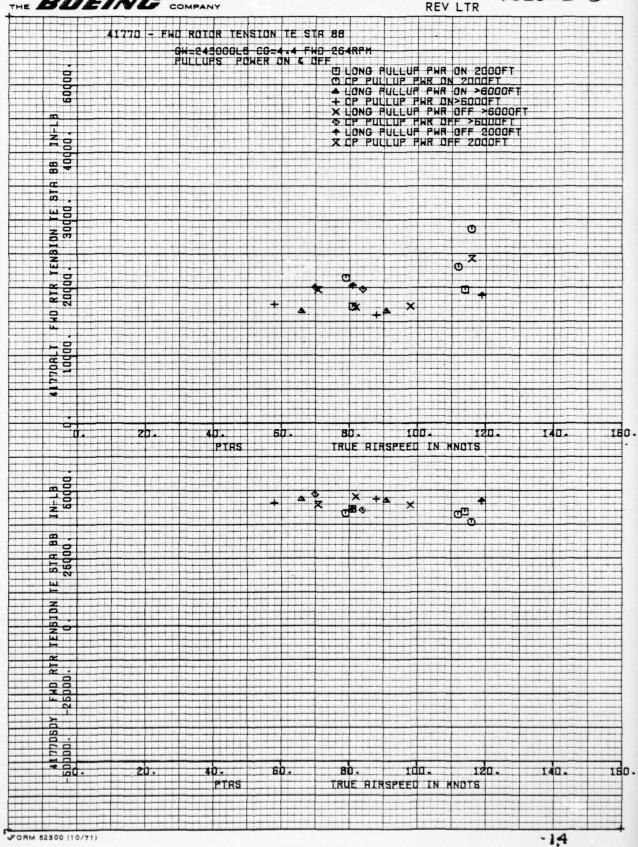
THE BOEING COMPANY

43

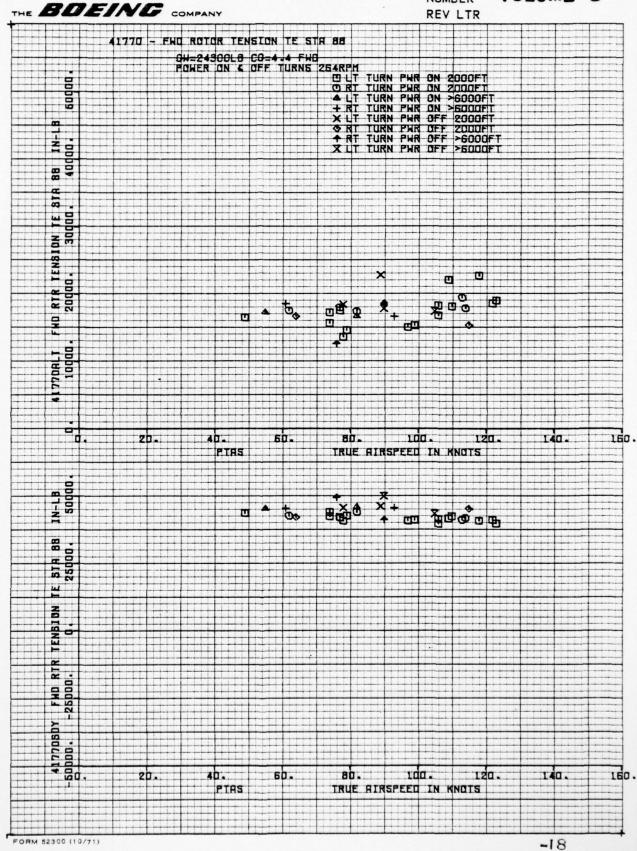


D210-11168-3

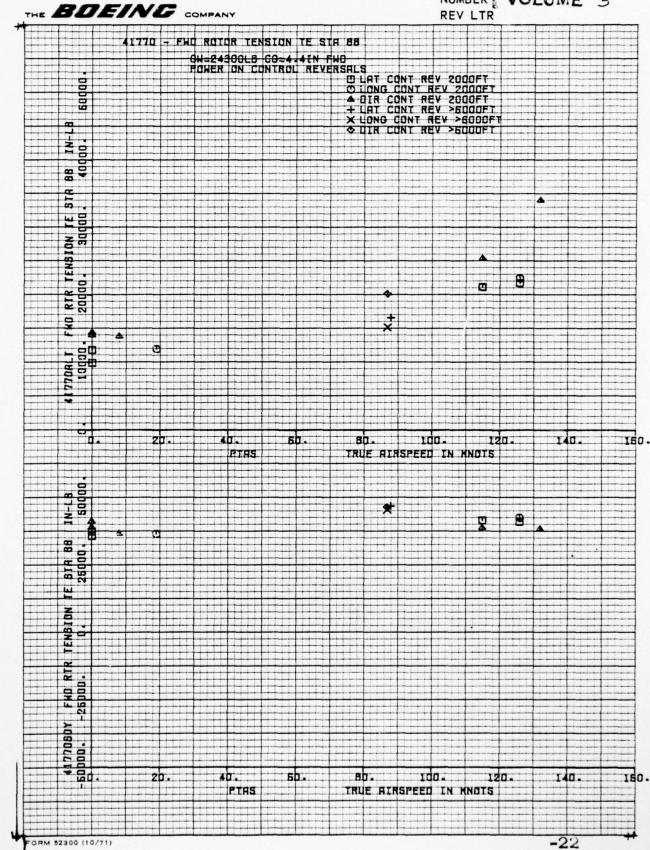
NUMBER | VOLUME 3



NUMBER



D210-11168-3
NUMBER VOLUME 3



D210-11168-3

-26

NUMBER VOLUME 3

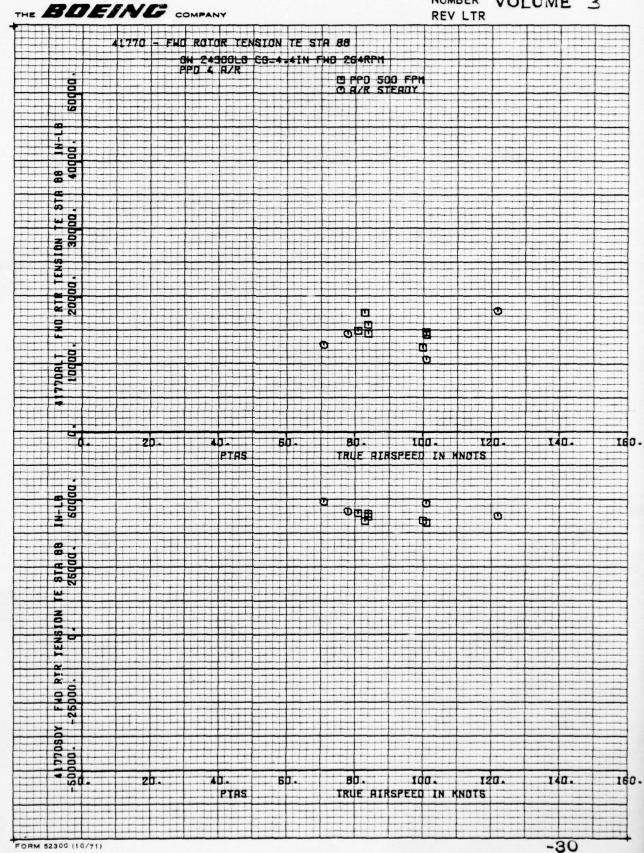
THE BOEING COMPANY REV LTR 1770 - FHU ROTOR TENSION TE STA 88 SW-24900LB CO-4.4IN FND 264RPM FLARE TO HOVER O FLARE TO HOVER 20000 60 0 0 0 O 50. 80. 100. 120. TAO. 150 . 20. 40. PTAS TRUE RIRSPEED IN MNOTS • U 1E STA 88 25000. Y FKD RTR 40. 80. 100. 150. PTAS TRUE AIRSPEED IN MNOTS

FORM 52300 (10/71)

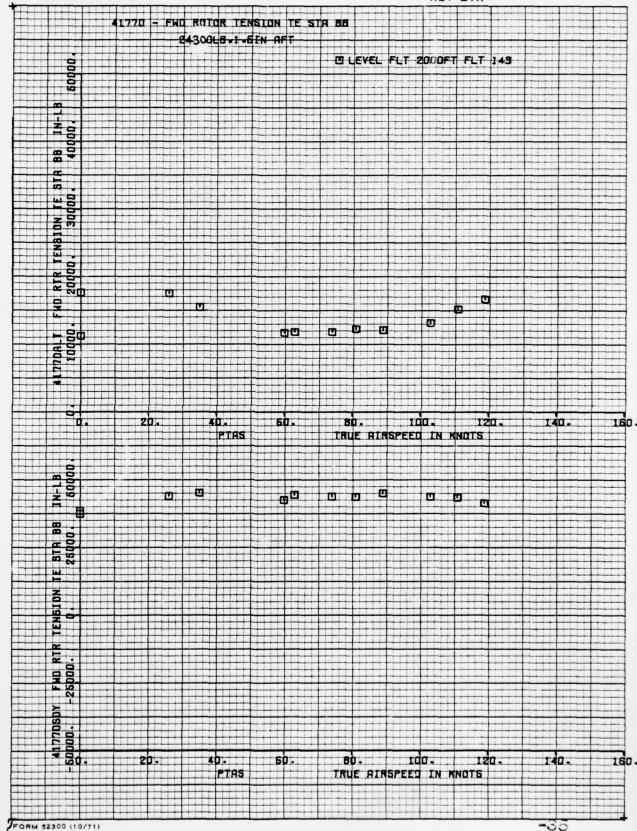
D210-11168-3

-30

NUMBER VOLUME 3 REV LTR



D210-11168-3 NUMBER REV LTR VOLUME 3



PREPARED BY: J. Bendo

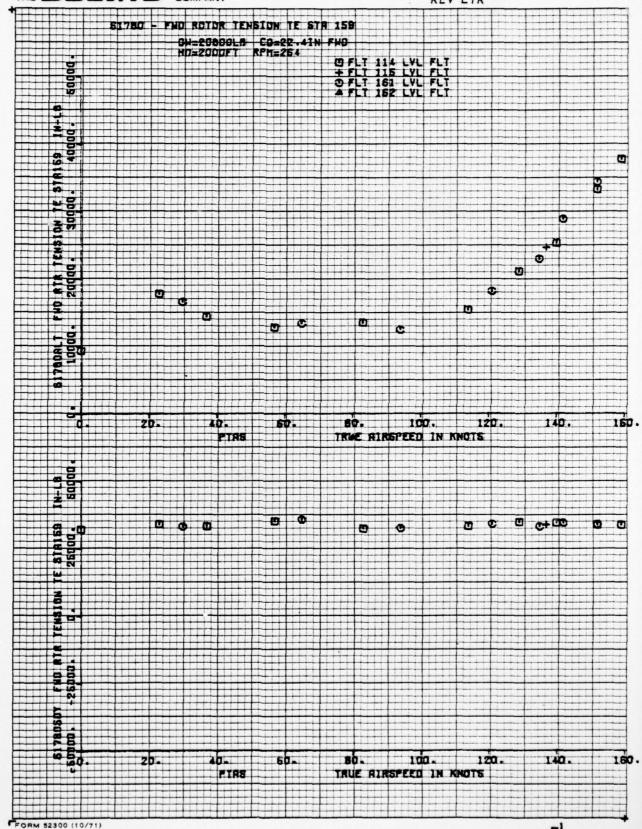
CHECKED BY:

THE BOEING COMPANY DATE:

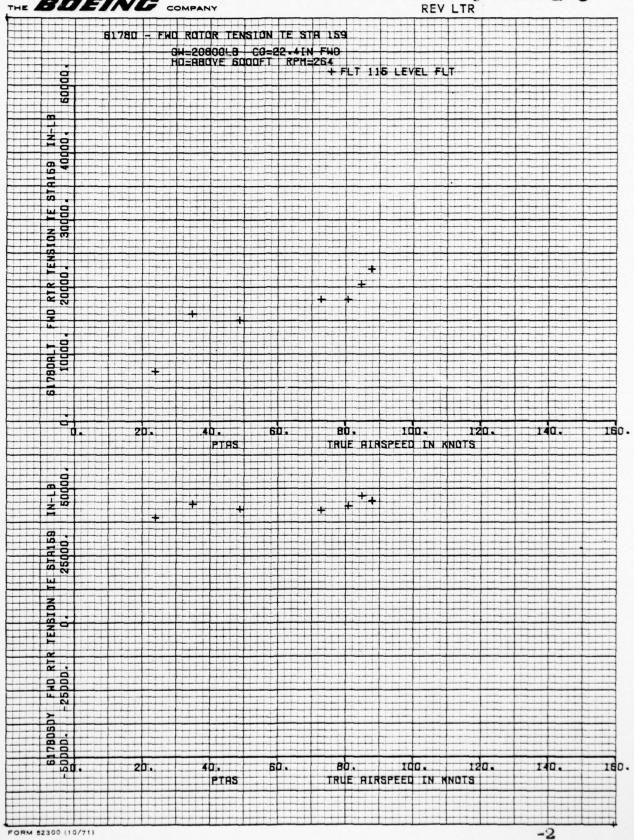
8/28/78

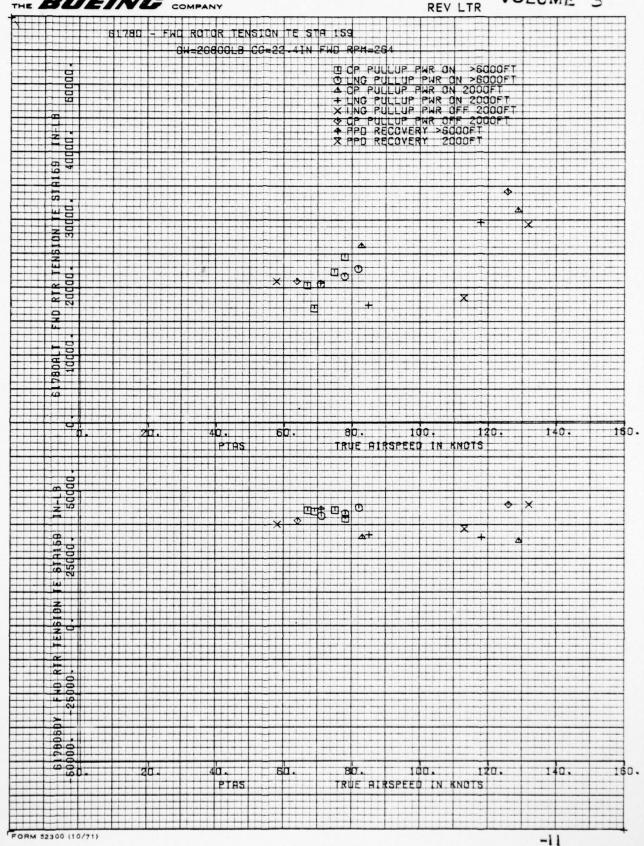
NUMBER D210-11168-3 REV LTR Volume 3 MODEL NO.

4.3 Forward Blade T.E. Tension Station 159.









NUMBER

THE BOEING COMPANY REV LTR 81780 - FWO ROTOR TENSION TE STA 159 GH=20800LB C0=22-4IN FWO RPM=264 © RT TURN PHR ON 2000FT

© LT TURN PHR ON 2000FT

A LT TURN PHR OFF 2000FT

+ RT TURN PHR OFF 2000FT

X RT TURN PHR ON >6000FT

♦ LT TURN PHR ON >6000FT

↑ RT TURN PHR OFF >6000FT

X LT TURN PHR OFF >6000FT FWD RIR TENSION TE ST 20000. × × o **U** � 00 17BDR\_T 100. 140. 160. 80. TRUE AIRSPEED IN KNOTS 80. 100. 140. 160. TRUE RIRSPEED IN KNOTS PTAS -15 FORM 52300 (10/71)

D210-11168-3 NUMBER THE BOEING COMPANY VOLUME 3 REV LTR 61780 - FUO ROTOR TENSION TE STA 159 0H=20800LB CG=22.41N FHD POHER ON 264RPH m U LAT CONTROL REV 2000FT ULAT CONTROL REV 2000FT
DING CONTROL REV 2000FT
LAT CONTROL REV 5000FT
LAT CONTROL REV 5000FT
UONG CONTROL REV 6000FT
DIR CONTROL REV 6000FT
LAT CONTROL REV >6000FT
X LONG CONTROL REV >6000FT
X LONG CONTROL REV >6000FT
Z OIR CONTROL REV >6000FT 4 B. 30000 S RIR TENSID Z 80. 80. 100. 4D. 180. TRUE AIRSPEED IN KNOTS 1N-LB 50000 DO 78159 000 8T RI -25000. 100. 120. 140. 160. PTAS TRUE AIRSPEED IN KNOTS FORM 52300 (10/71) -19

SHEET 94

0

THE BOEING COMPANY REV LTR 51780 - FWD ROTOR TENSION TE STR 159 OW-20000LB CO-22.4IN FWD POWER OFF 264RPM © LONG CONTROL REV 2000FT

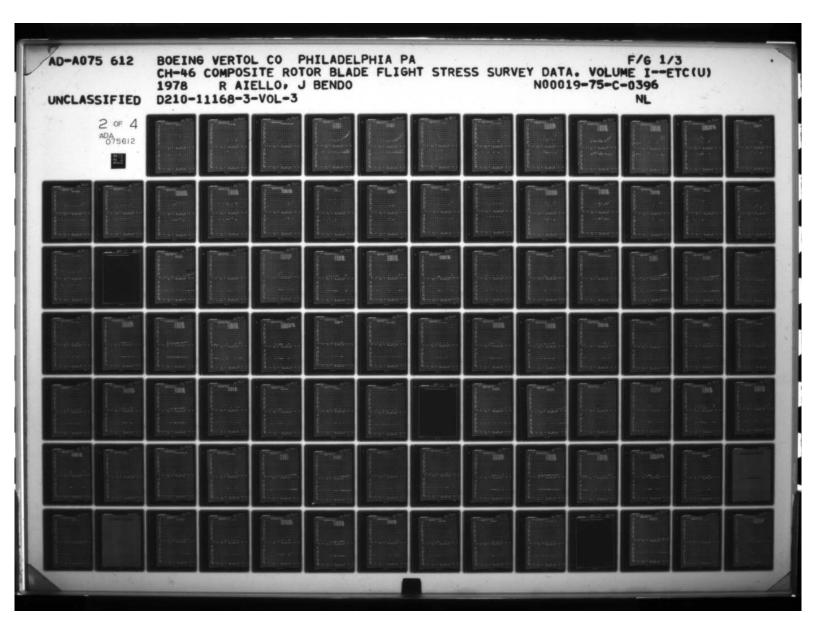
© LONG CONTROL REV 2000FT

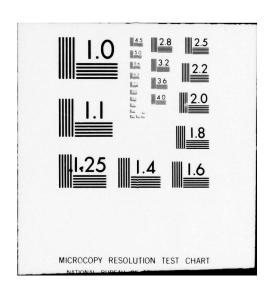
DIR CONTROL REV 2000FT

+ LAT CONTROL REV >6000FT

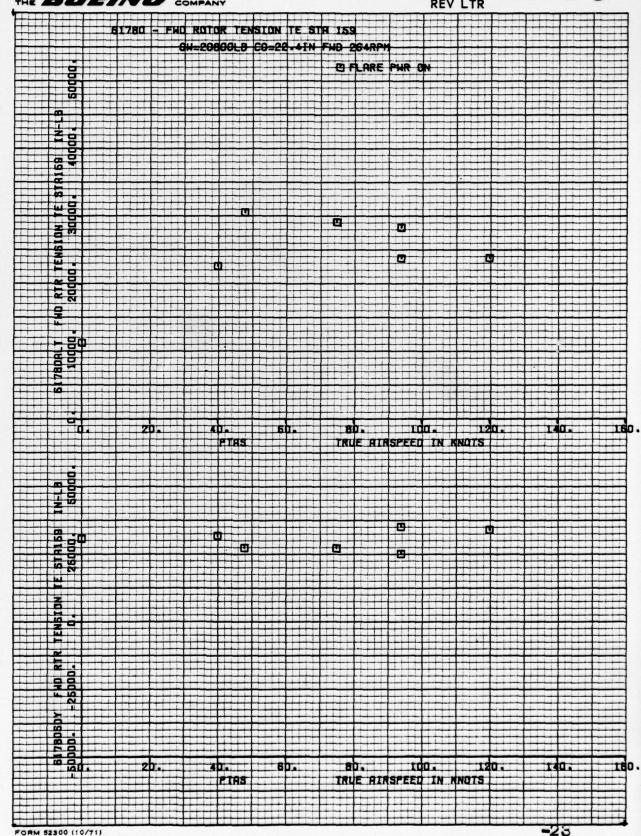
X LONG CONTROL REV >6000FT

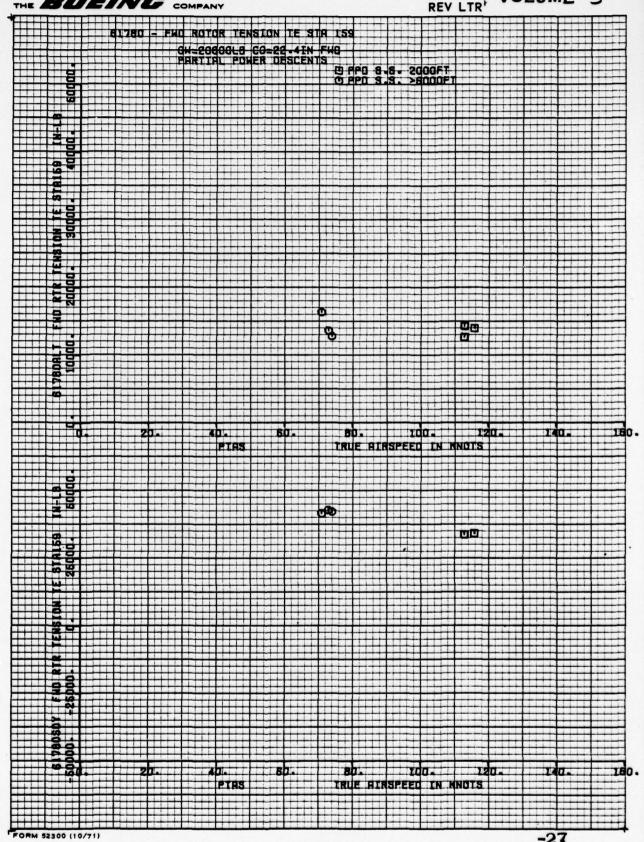
Z DIR CONTROL REV >6000FT 50000 5 . RTR TENSION TE 20000. 30000 00 2 ACT 617808.T を 80. 100. 160 . PTAS TRUE AIRSPEED IN KNOTS IN-LB S0000. STR159 -500000--21 40. 80. 100. 120. 1340 PIAS TRUE RINSPEED IN KNOTS





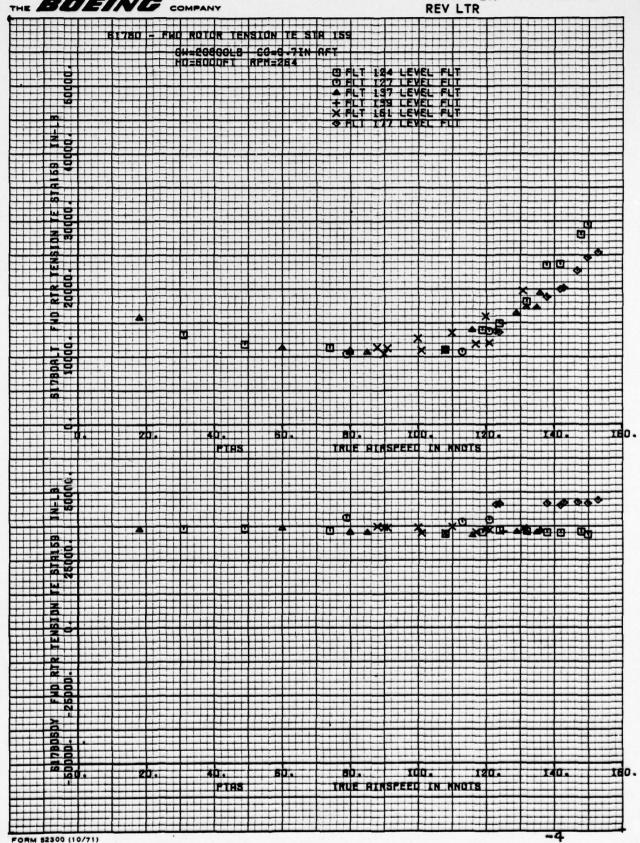
D210-11168-3 NUMBER VOLUME 3





THE BOEING COMPANY **REV LTR** 61780 - FHO ROTOR TENSION TE STA 159 CH-20000LB CO-22 4IN FHO HUTGROTATIONAL MANEUVER @ AUTOROTATION STEADY >8000FT 20 0 120. 100. TRUE ALASPEED IN KNOTS PTAS 100. TRUE RINSPEED IN MNOTS PTAS -27 FORM 52300 (10/71)

FORM \$2300 (10/71)



D2F0-11168-3

THE BOEING COMPANY REV LTR 81780 - FUO ROTOR TENSION TE STA 159 0H-20800LB CG-8 71N ACT D FLT 124 LEVEL FLT STR159 W 8 m 19 IBO. TRUE AIRSPEED IN MNOTS PTAS STR159 <u></u> 100 TRUE AIRSPEED IN MOTS PTAS FORM 52300 (10/71)

D210-11168-3

NUMBER TVOLUNE 3 REV LTR

THE BOEING COMPANY 81780 - FHO ROTOR TENSION TE STA 159 20000LD 9.71N AFT 240 RPH D LEVEL FLIGHT 6000 FT IED. TRUE HIRSPEED IN KNOTS PTRE

FORM 52300 (10/71)

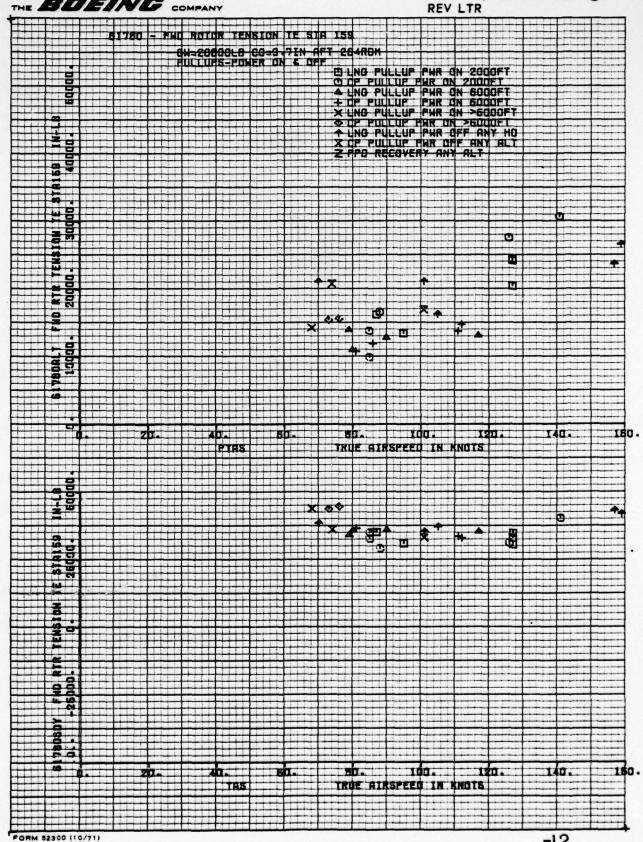
150.

FTRE

50. 80. 100. 120.

TRUE AIRSPEED IN KNOTE

NUMBER | VOLUME 3



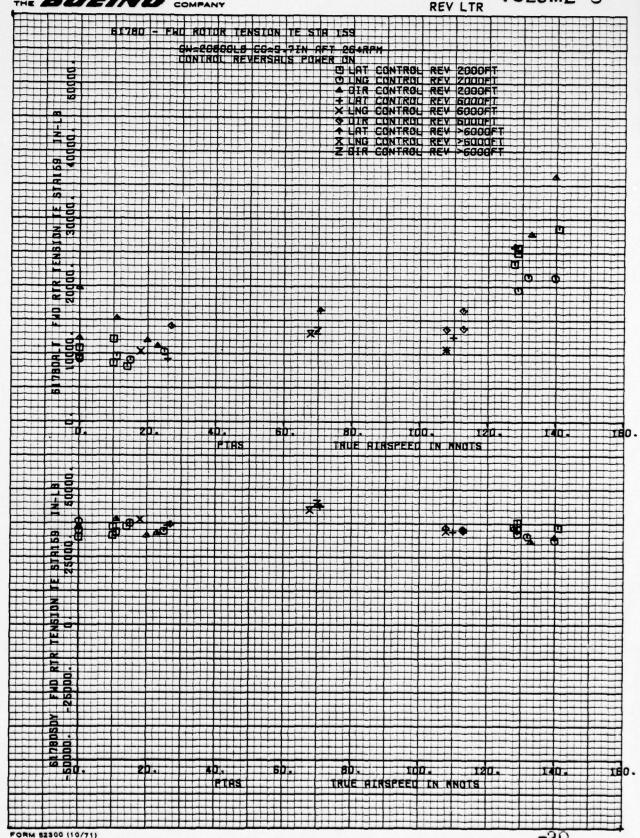
NUMBER -VOLUME 3 REV LTR

THE BOEING COMPANY 81780 - FHO ROTOR TENSION TE STA 159 GN=2080GLB CO=9-7EN AFT 264RPH E RT TURN PHR ON 2000FT
COLIT TURN PHR ON 2000FT
ART TURN PHR ON 6000FT
+ UT TURN PHR ON 6000FT
X RT TURN PHR ON 5000FT
O UT TURN PHR ON 5000FT
X UT TURN PHR OFF 6000FT
X UT TURN PHR OFF 6000FT
X UT TURN PHR OFF 5000FT
Y UT TURN PHR OFF 5000FT
Y UT TURN PHR OFF 5000FT **#8** • • 4 0+ 0 0 0 q a cox b 80. 100. 160. TRUE AIRSPEED IN MOTE PTAS **F**OR **O** O 60. 1da. 120. 140-160. sD. TRUE RINSPEED IN MNOTS PIAS

FORM 52300 (10/71)

THE BOEING COMPANY

D210-11168-3 NUMBER VOLUME 3



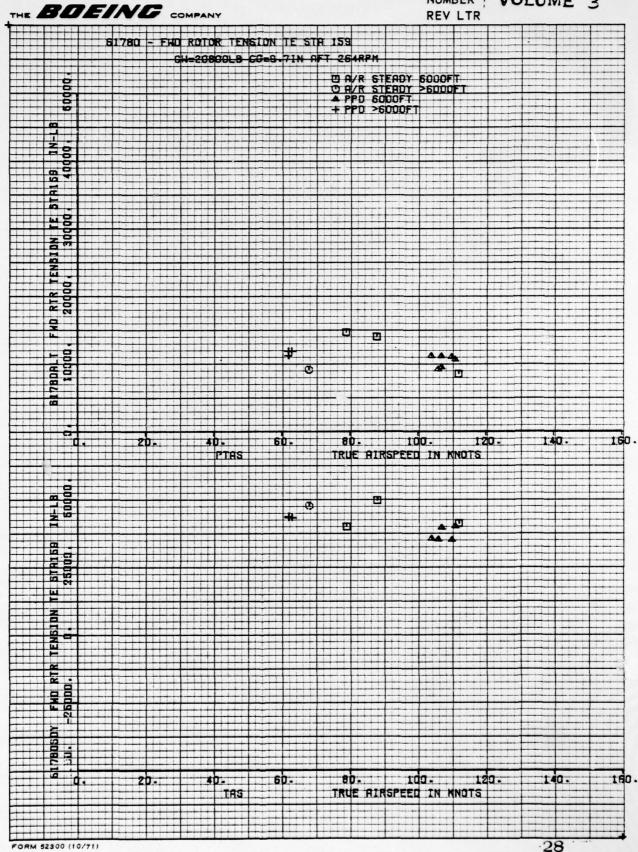
NUMBER VOLUME 3

THE BOEING COMPANY

81780 - FWO ROTOR TENSION TE STA 159 GH=20800LB CO=9-71N AFT 264RPH CHAT CONTROL REV PHR OFF SOCOFT
O LNG CONTROL REV PHR OFF SOCOFT
+ LAT CONTROL REV PHR OFF SOCOFT
X LNG CONTROL REV PHR OFF SOCOFT
O LIR CONTROL REV PHR OFF SOCOFT
SOLOR CONTROL REV PHR OFF SOCOFT
SOLOR CONTROL REV PHR OFF SOCOFT
THE STATE OF SOCOFT
X FLARE TO LOVER 5 W 8 NO NO X RTR TENS 20909. X X 2 M 40 10 CE 4 × 10 100. 80. 140. 160. TRUE AIRSPEED IN KNOTS PTAS 1N-L B 50000 X X\_& 0 O D STR159 25000. -50000. \_\_\_\_rdo.\_\_\_ 140. 40. 60. . sò. 160 . TRUE AIRSPEED IN MOTS PTAS FORM 52300 (10/71) -24

NUMBER | VOLUME 3

**REV LTR** 



FORM 52300 (10/71)

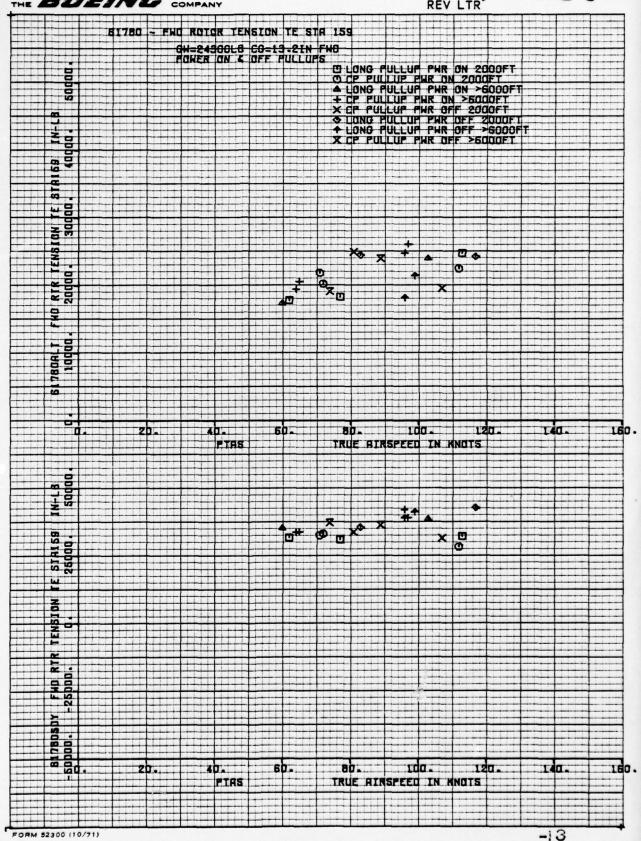
THE BOEING COMPANY REV LTF 1780 - FHO ROTOR TENSION TE STA 159 0H=24900LB CO-19.2IN FNO HD=2000FT RPH=264 OFLT 117 LEVEL FLT OFLT 119 LEVEL FLT AFLT 121 LEVEL FLT FNO RTR TENSION TE STRIGS IN-LI 0 6 80-IEO. PTAS TRUE AIRSPEED IN MNOTS 0 0 0 0 160. PTAS TRUE AIRSPEED IN KNOTS FORM 52300 (10/71) -6

THE BOEING COMPANY

61780 - FHO ROTOR TENSION TE STA 159 GW-24300LB CG-13.21N FWB HO=>5000FT RPM-254 OFLT 121 LEVEL FLT FND RTR TENSION TE O O D 0 140. 160 . 40. 80. PTRS TRUE HIRSPEED IN KNOTS Saga (5) DI. 5T 260 TR YENSION Y FAD RYR -25000. Ida. TAIL. ISO. AD. 80-PTRS TRUE AINSPEED IN MOUTS



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D210-11168-3 NUMBER VOLUME 3

THE BOEING COMPANY

61780 - FHO ROTOR TENSION TE STA 159 CH-24300LB CO-13.2IN FWO 4RPM

D LT TURN PWR ON 2000FT

O RT TURN PWR ON 2000FT

A RT TURN PWR ON >6000FT

+ LLT TURN PWR ON >6000FT

X LT TURN PWR OF 2000FT

O RT TURN PWR OFF 2000FT

TURN PWR OFF >6000FT

X RT TURN PWR OFF >6000FT 50000 81 RIR TENBIC 20000. m@ m O U 00 A BD. - 100-160. TRUE REASPEED IN MOUTS PIRS STA168 25000. Agric X od Ba OD. FMD RT 160. 100. 80. TRUE AIRSPEED IN MNOTS PTAS FORM 52300 (10/71)

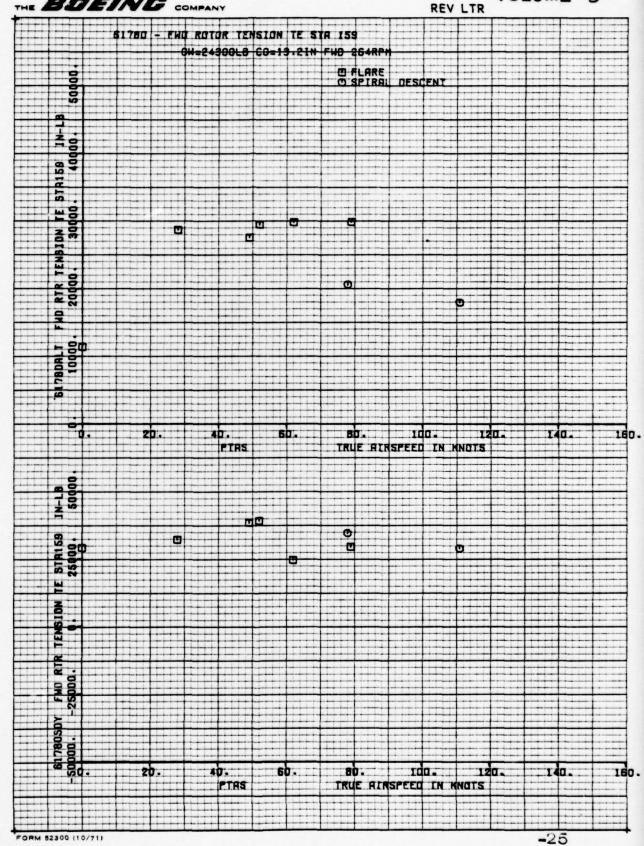
NUMBER

THE BUEING COMPANY

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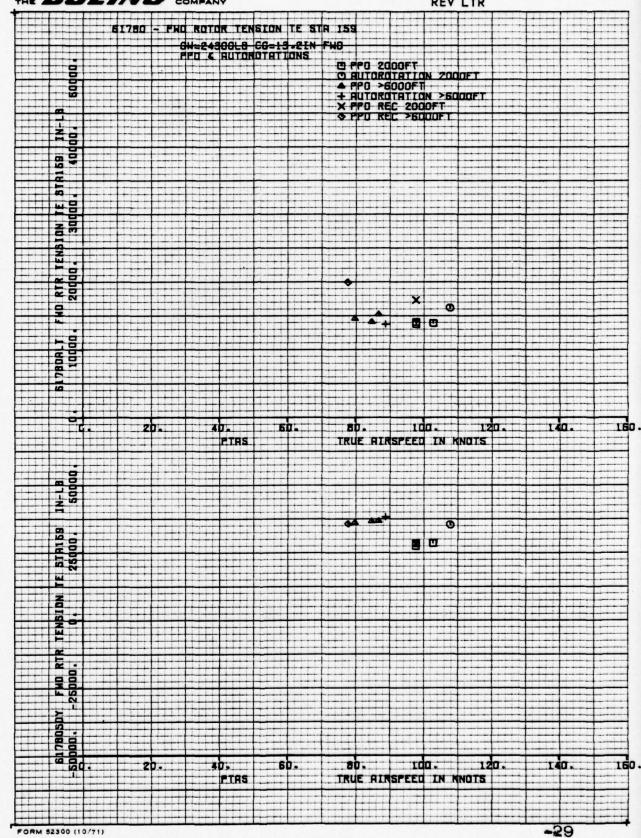
REV LTR 61780 - FHO ROTOR TENSION TE STA 159 GH-24500LB GO-15-21N FHO CONTROL REV. POWER ON 254RPH O LAT CONTROL REV 2000FT + LAT CONTROL REV 2000FT + LAT CONTROL REV >6000FT × LONG CONTROL REV >6000FT O LR CONTROL REV >6000FT 31 0 0 × 0 OP 8b- 1 1da-160. TRUE RIRSPEED IN MNOTS PIAS STR168 25000. 9 80. 160. Ida. FTAS TRUE RIRSPEED IN MNOTS FORM 52300 (10/71) -21

D210-11168-3 1 NUMBER VOLUME 3



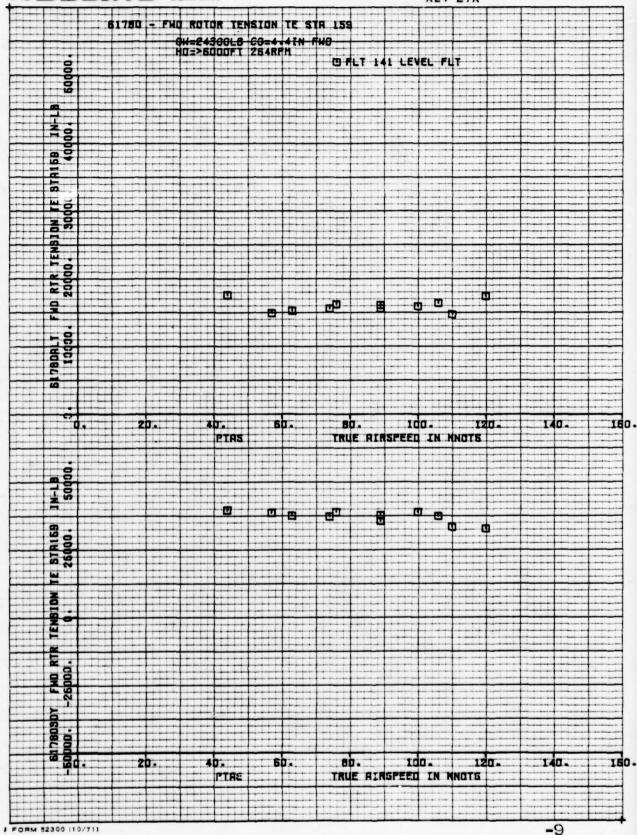
THE BOEING COMPANY

REV LTR



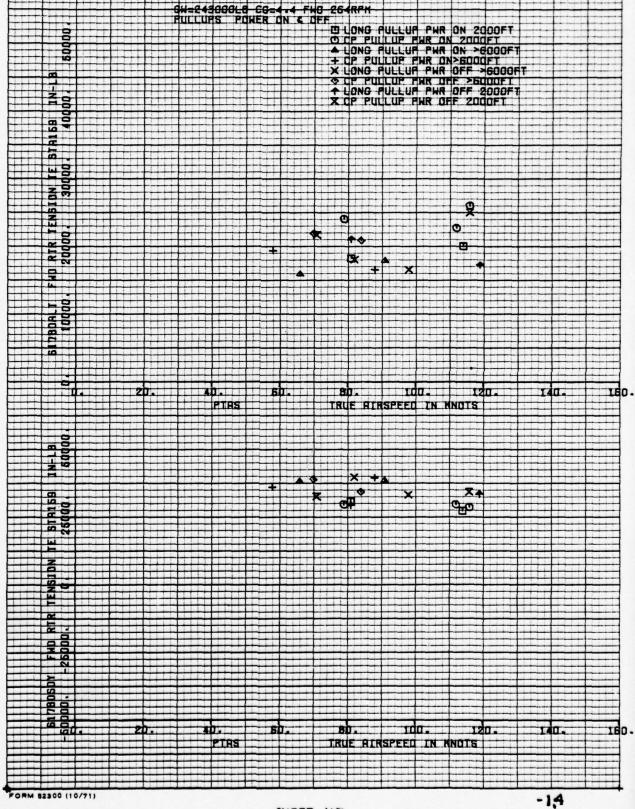
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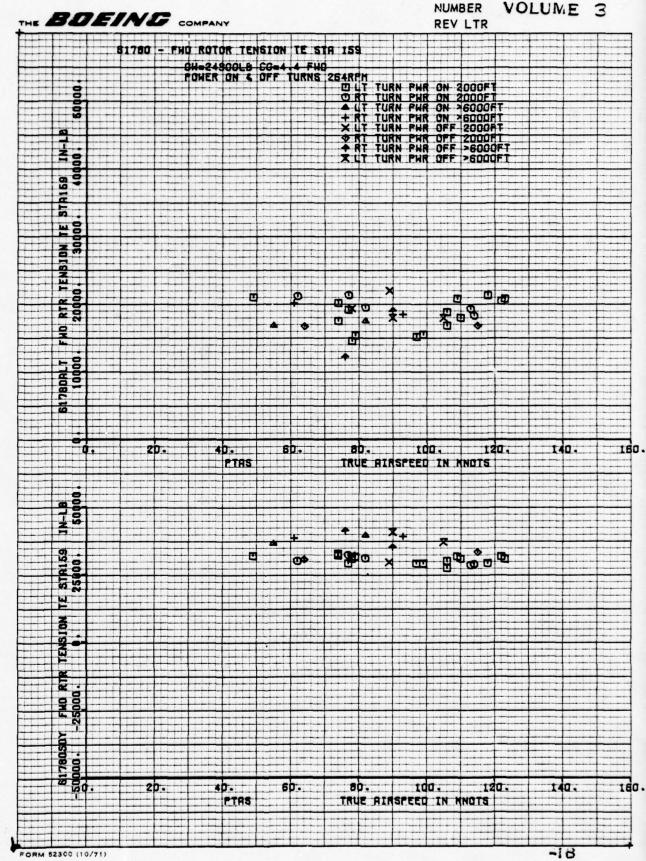
FORM 52300 (10/71)



- FWO ROTOR TENSION TE STA 159

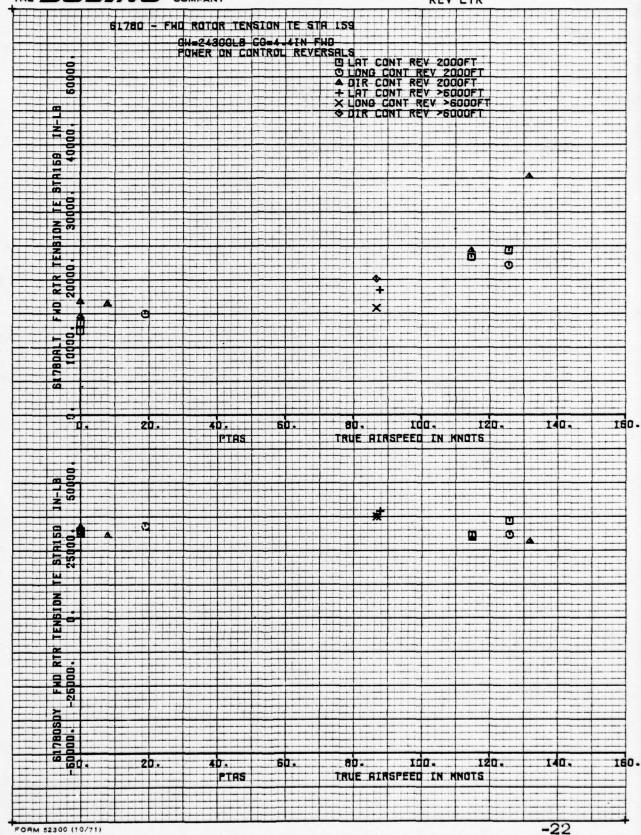
D210-111€8-3 NUMBER VOLUME 3 **REV LTR** 

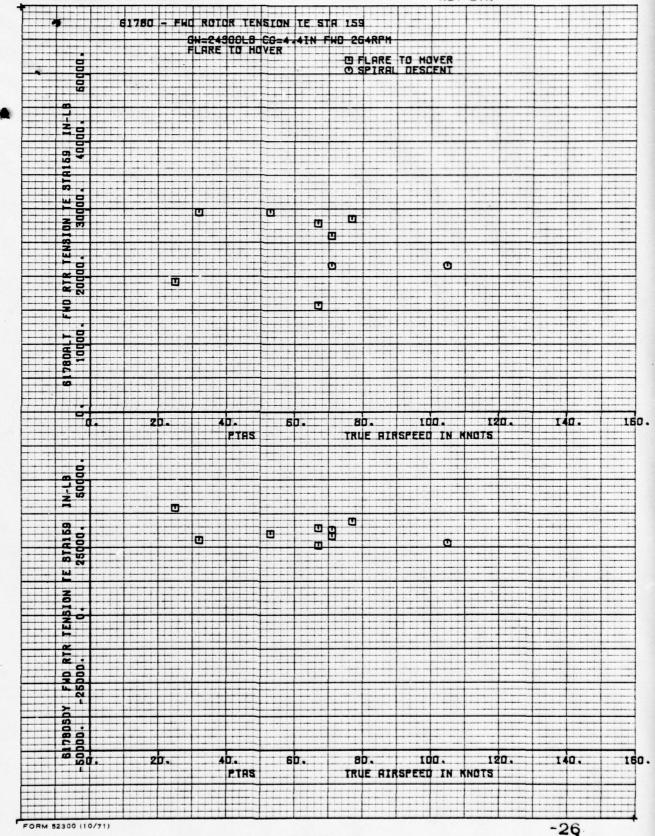


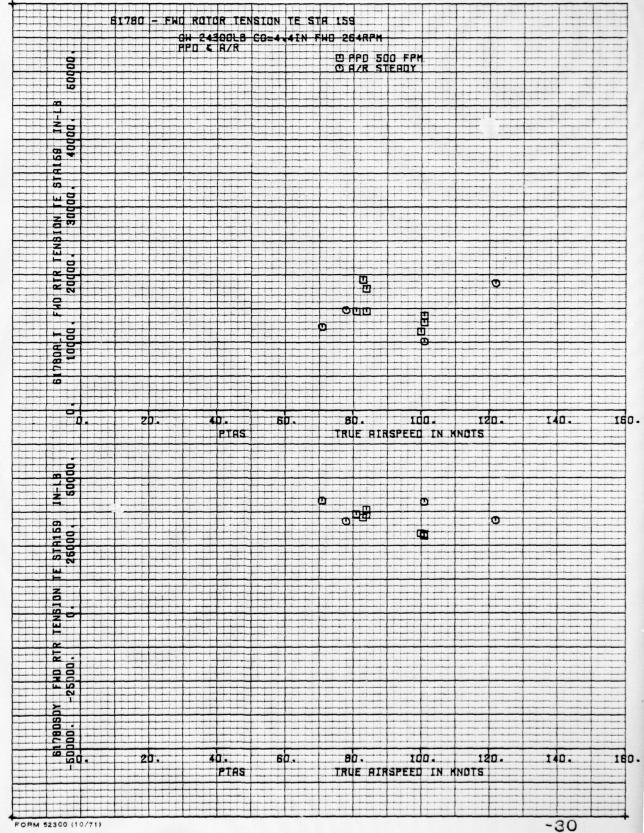


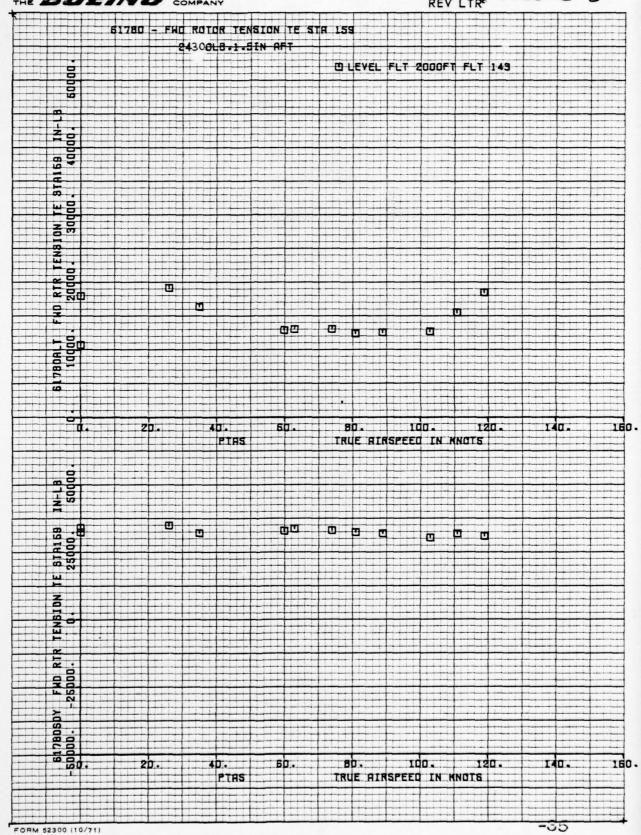
THE BOEING COMPANY

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PREPARED BY: J. Bendo

NUMBER D210-11168-3 REVLTR Volume 3

MODEL NO.

THE BUEING COMPANY DATE:

CHECKED BY:

8/28/78

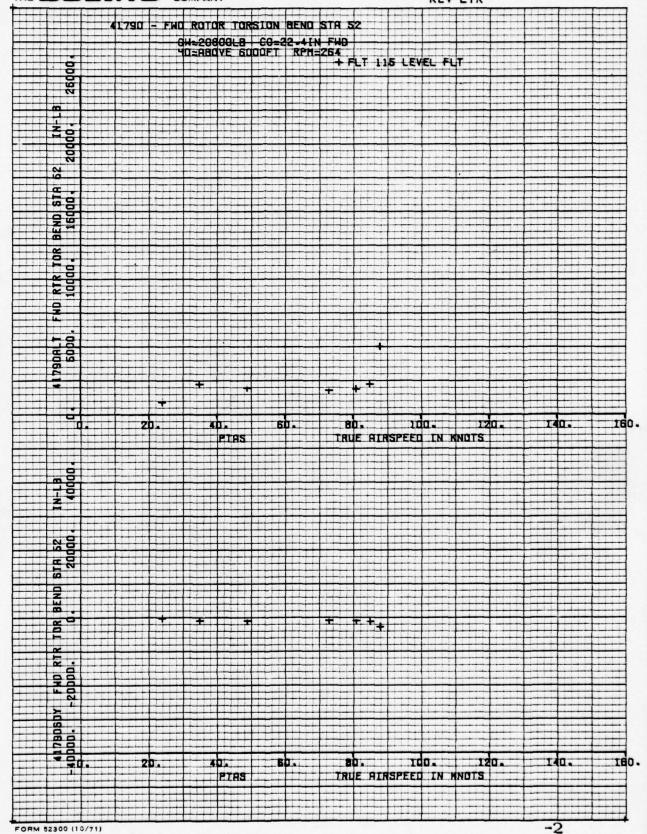
4.4 Forward Blade Torsion Bending Station 52.

FORM 11180 (6/67)

NUMBER

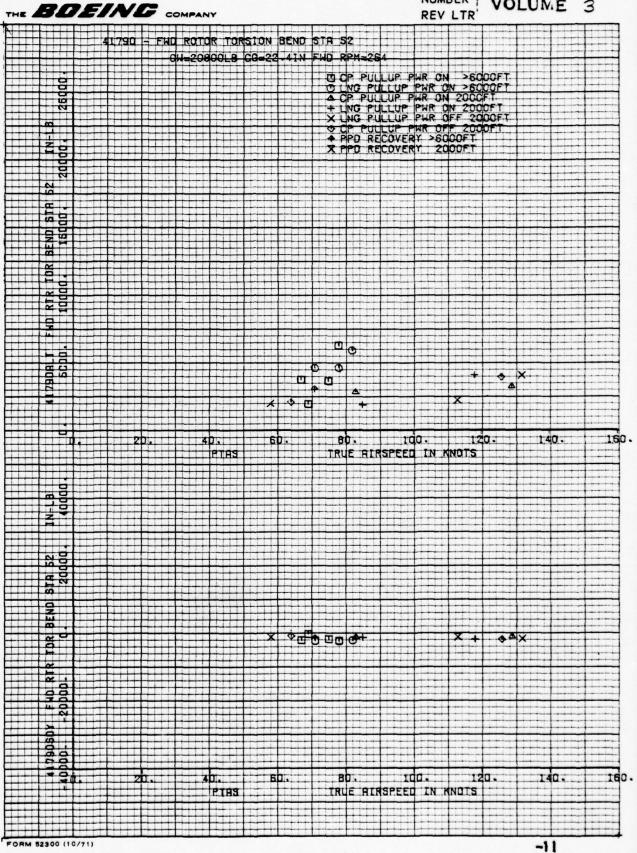
THE BUEING COMPANY **REV LTR** 41790 - FHO ROTOR TORBION BEND STA 52 GH=20800LB C0=22.41N FHO HD=2000FT RPH=264 # FLT 114 LVL FLT # FLT 115 LVL FLT # FLT 161 LVL FLT # FLT 162 LVL FLT DAG COA 0 0 @ C 0 80. 1dg. 120. 160. TRUE RINSPEED IN MNOTS FTAS C C C C C C C C C 80. 100. 120. 140. 180 . TRUE RIRSPEED IN MNOTS PTRE FORM 52300 (10/71)

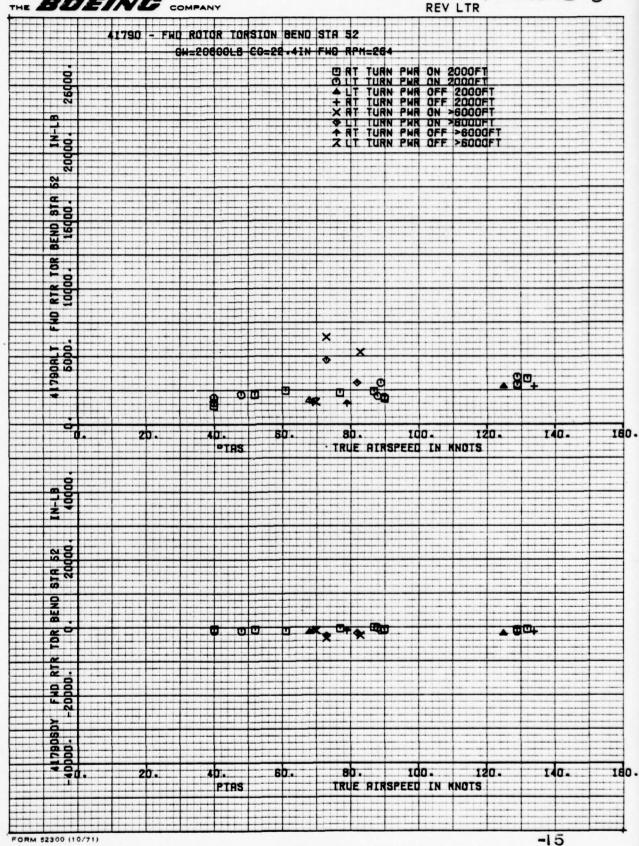
NUMBER REV LTR



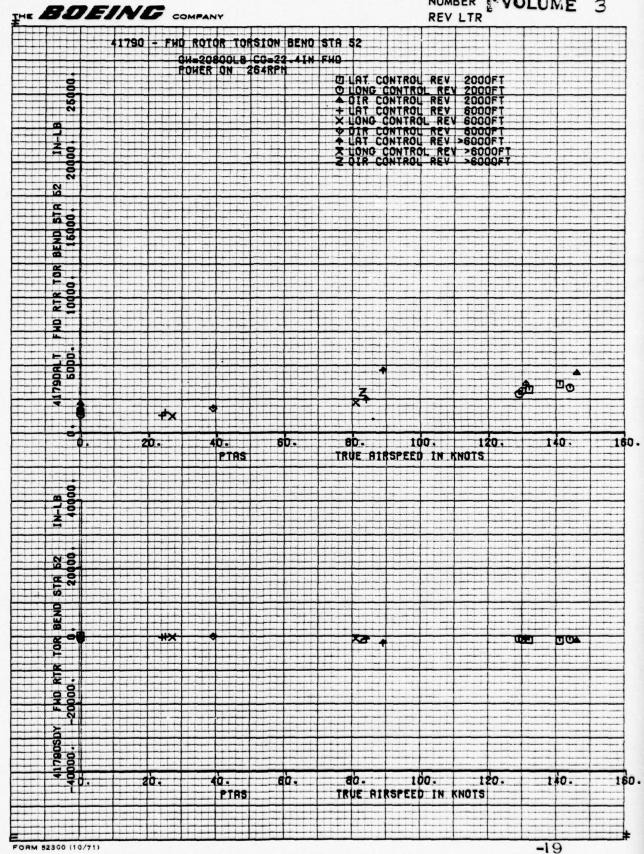
NUMBER ; REV LTR'

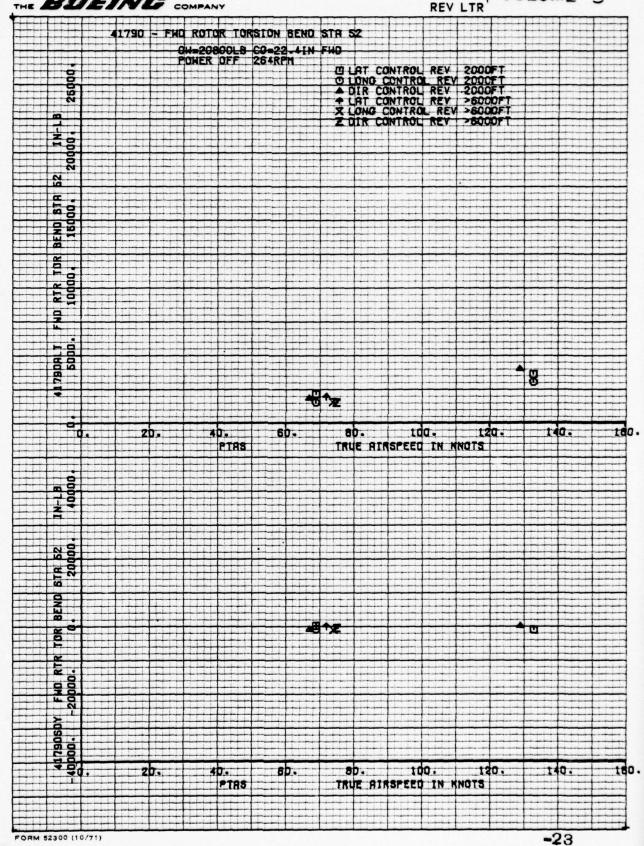
VOLUME 3



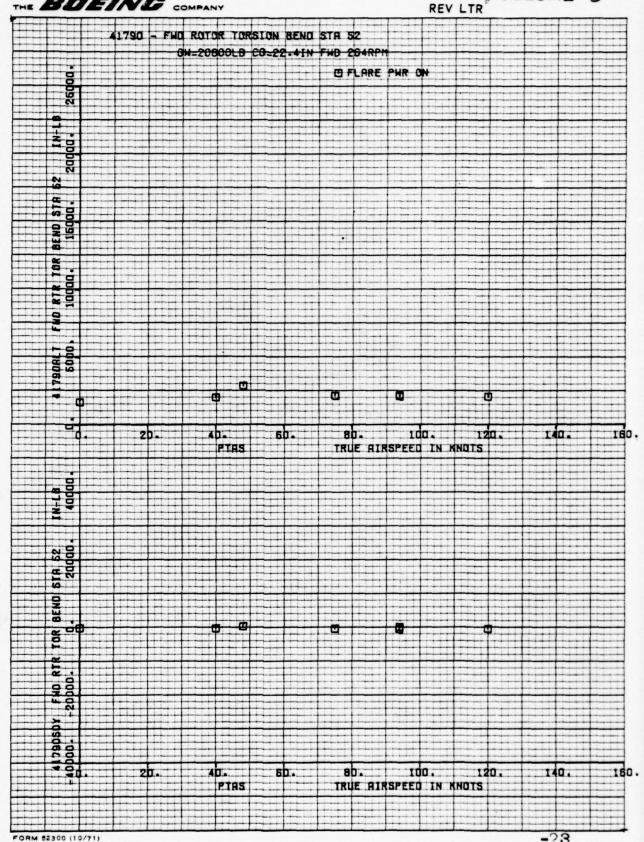


D210-11168-3
NUMBER VOLUME 3



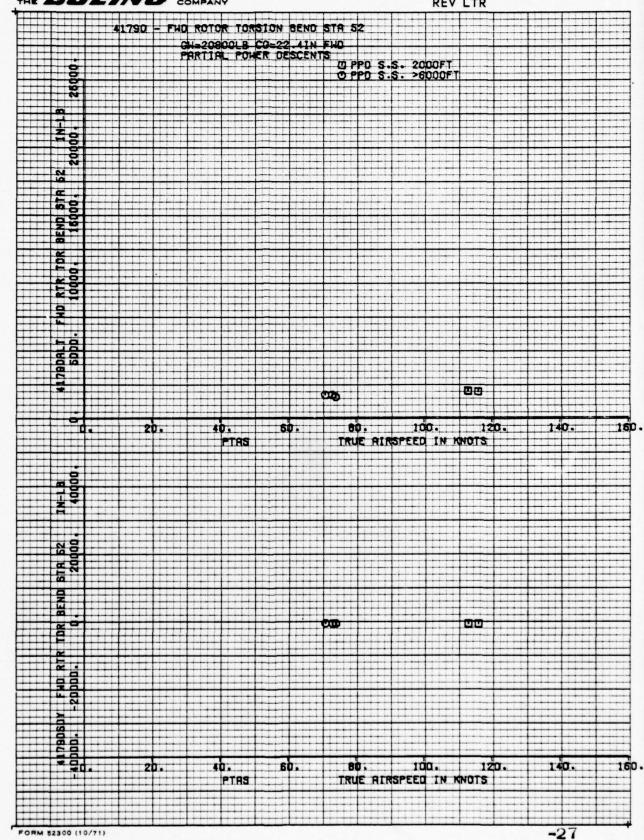


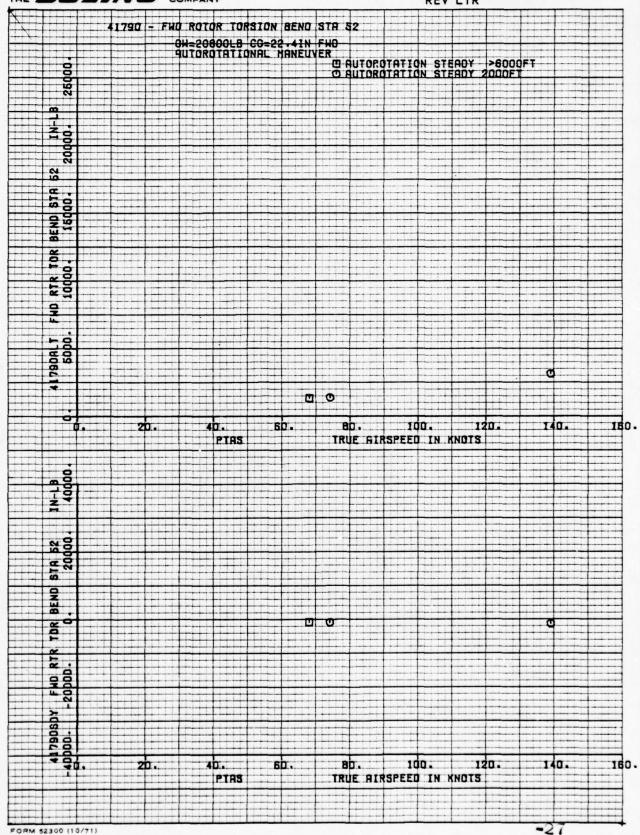




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REV LTR 1790 - FWO ROTOR TONSION BEND STA 52 GH=20000LB C9=9.7IN AFT HD=2000FT RPH=264 OFLT 126 LEVEL FUT 25900. ↑ FLT 128 LEVEL FLT

↑ FLT 136 LEVEL FLT

↑ FLT 138 LEVEL FLT

↑ FLT 151 LEVEL FLT

↑ FLT 177 LEVEL FLT

X FLT 177 LEVEL FLT

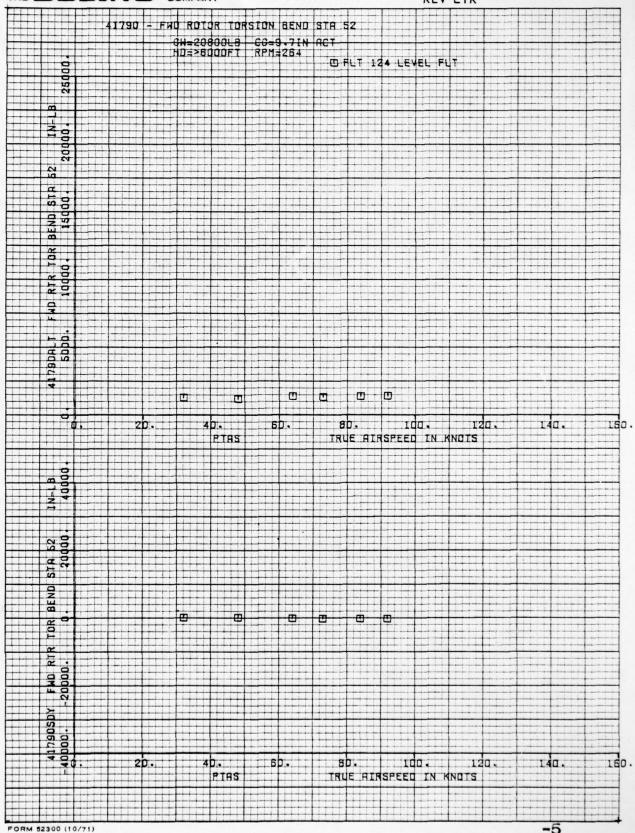
X FLT 122 LEVEL FLT Z FLT 124 LEVEL FUT 200 200 BEND 150 780AL T 5000 40 X0 XXC X CX CX 50. 80. 100. 120. 140. TAD. 150. PTAS TRUE ALASPEED IN MNOTS STA 52 20000. BEND D O+ A A AC XC XREXCENSED RTR . 80. Ido. 140. 160. TRUE AIRSPEED IN MNOTS PTAS FORM 52300 (10/71)

THE BUEING COMPANY

FORM 52300 (10/71)

**REV LTR** 41790 - FWO ROTOR TORSION BEND STR 52 GH=20600L8 C0=9-7IN AFT HD=5000FT RPM=264 OFLT 124 LEVEL FLT A FLT 137 LEVEL FLT + FLT 139 LEVEL FLT X FLT 151 LEVEL FLT S FLT 177 LEVEL FLT STA 00. BEND 150 RTR TOR 10000. 790A 50 \* BYO MEN AND AND THE OWN U 0 AXX 80. 100. 40. 60. 150. TRUE HIRSPEED IN KNOTS PTHS IN-L8 40000 STA 52 20000 2 BE R FAD R 80. Ido. 140. 160. 20. 40. PTAS TRUE RINSPEED IN MOTS

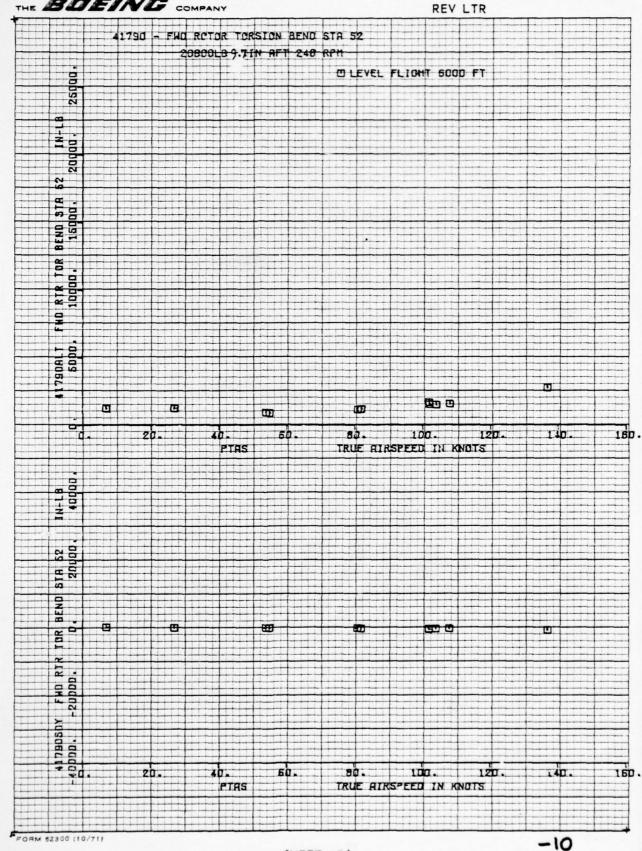
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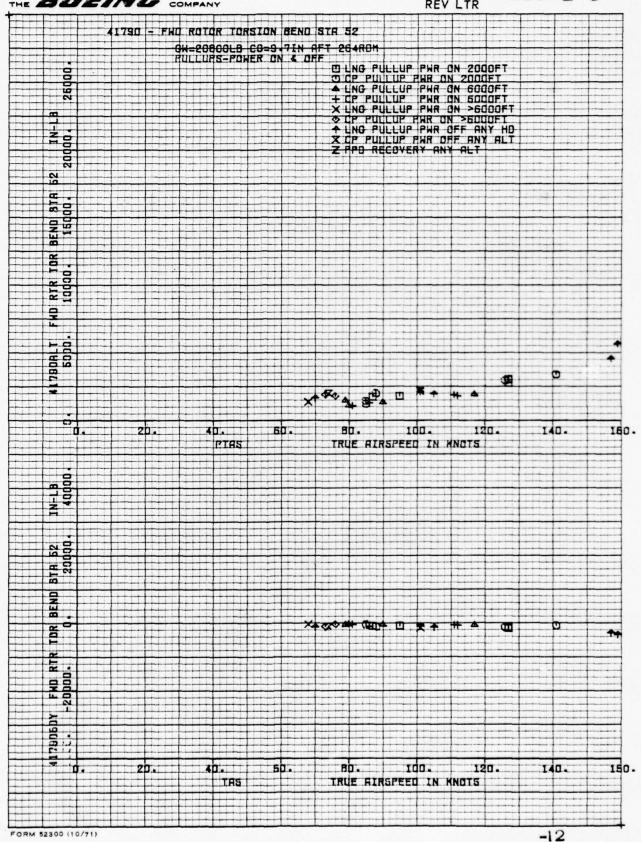
D210-11168-3 NUMBER VOLUME 3

THE BUEING COMPANY

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NUMBER REV LTR

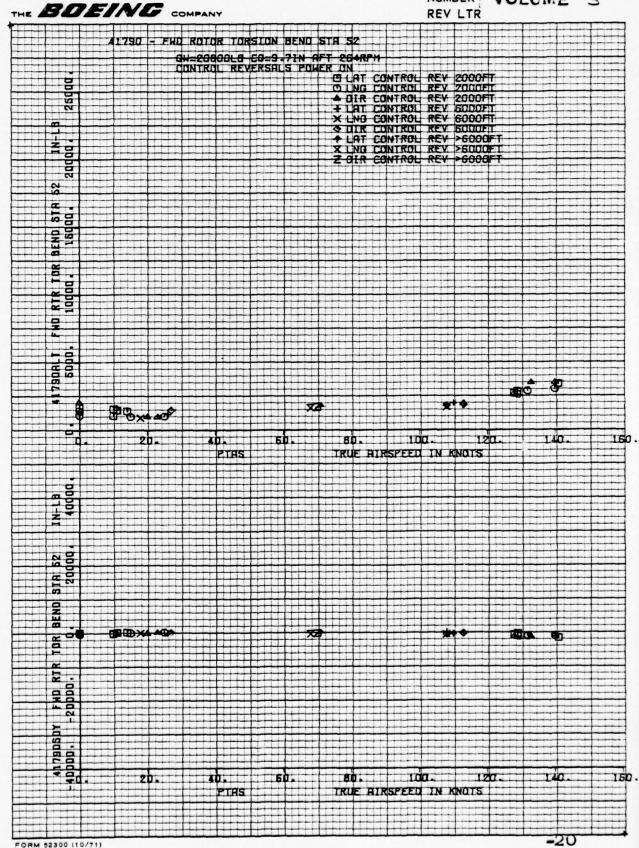


NUMBER

THE BOEING COMPANY

REV LTR 1790 - FWO ROTOR TORSION BEND STA 32 CH=20000LB CO=9.7IN OFT 264RPM O RT TURN PWR ON 2000FT
O LI TURN PWR ON 2000FT
ART TURN PWR ON 6000FT
+ LI TURN PWR ON 6000FT
X RT TURN PWR ON >6000FT
O LI TURN PWR ON >6000FT
X LI TURN PWR OFF 6000FT
X LI TURN PWR OFF 6000FT
X LI TURN PWR OFF >6000FT
Z RT TURN PWR OFF >6000FT
Y LI TURN PWR OFF >6000FT STA 00. BEND RTR TOR 41790ALT 6000-OD O D 20. 40. 80. 100. 120. 140. 160. PIRS TRUE BIRSPEED IN KNOTS STR 52 20000. BEND **(型 球団⊕基 × 本 (車)の 大学(車) 本田 ・ 1** Y FWD RTR -20000. -40000 -2 40. 80. | 1do. | 160. PTAS TRUE RIRSPEED IN KNOTS FORM 52300 (10/71) -16

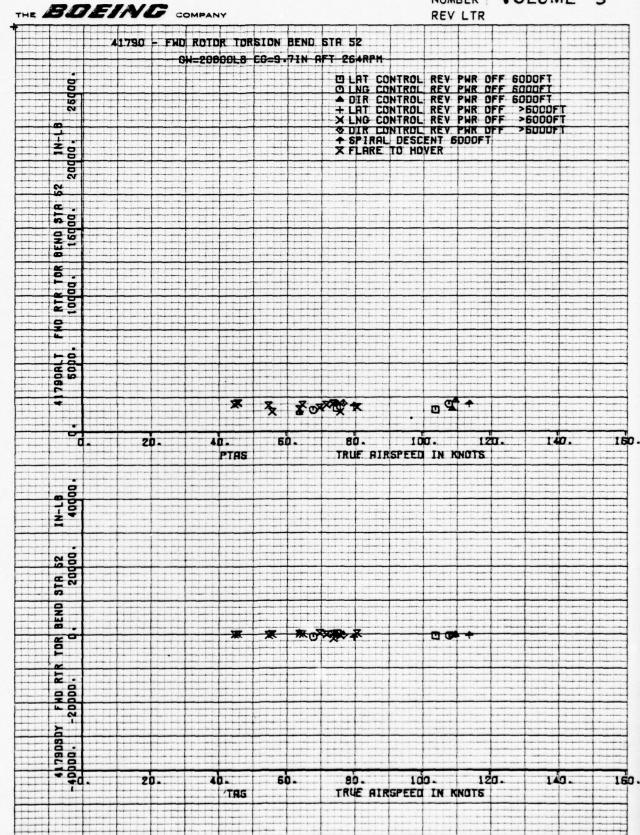
REV LTR



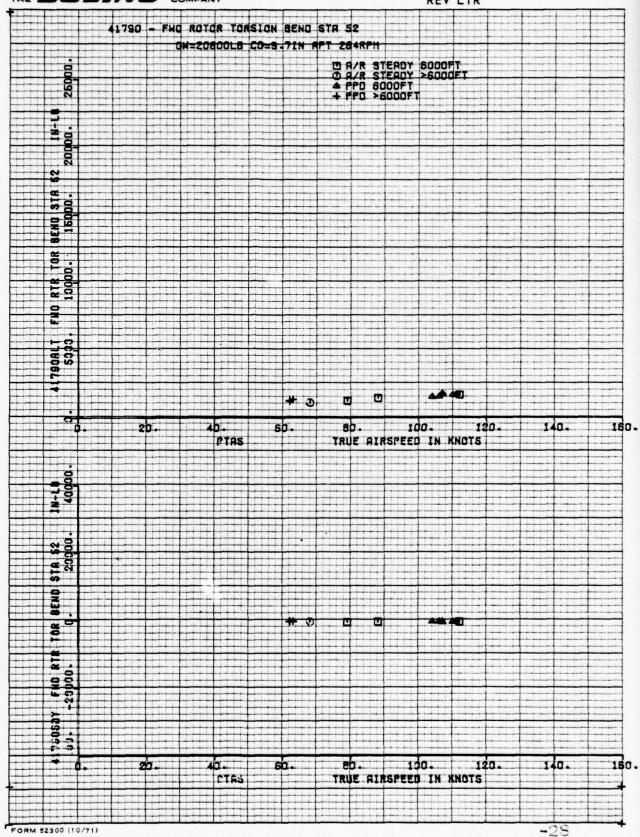
D210-11168-9

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NUMBER! VOLUME 3



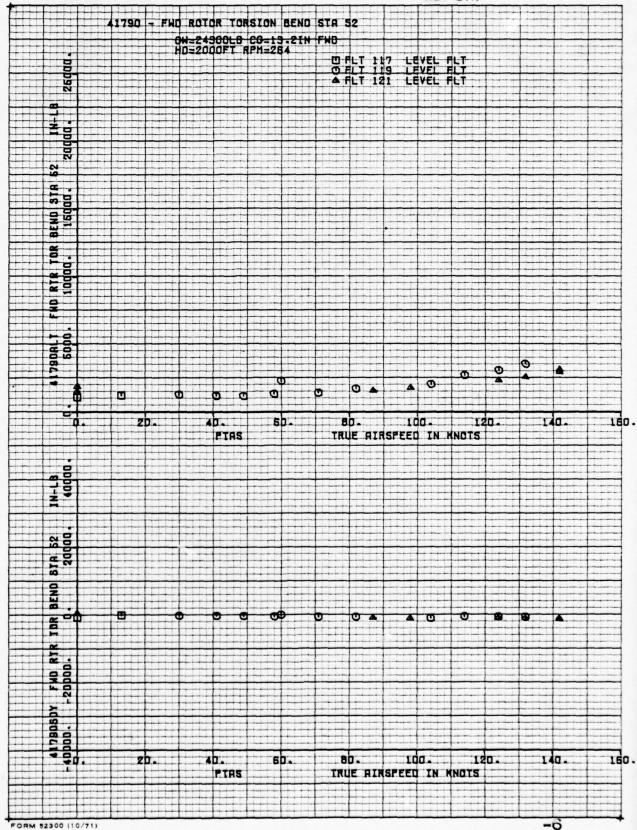




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THE BOEING COMPANY

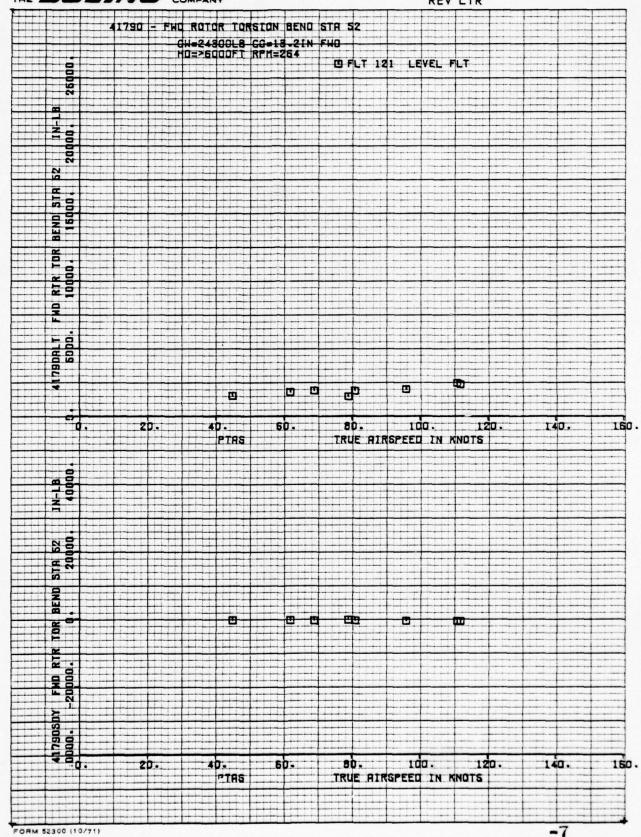
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D210-11168-8 1

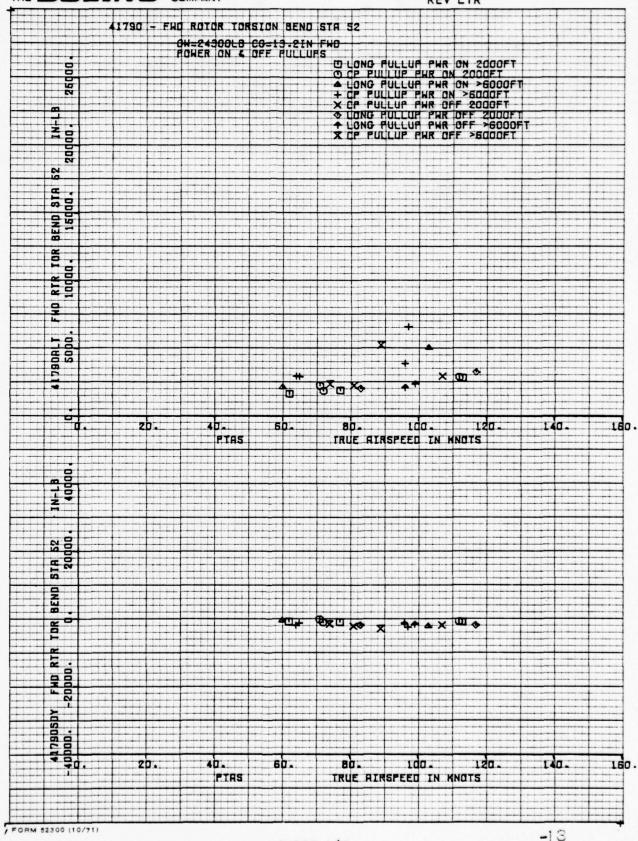
NUMBER VOLUME 3
REV LTR

THE BOEINE COMPANY



NUMBER VOLUME 3

THE BOEING COMPANY

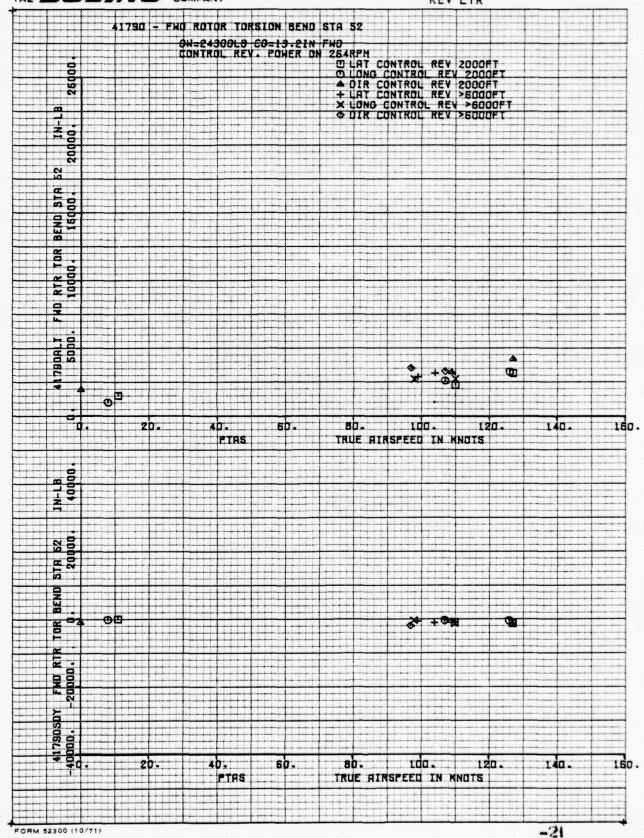


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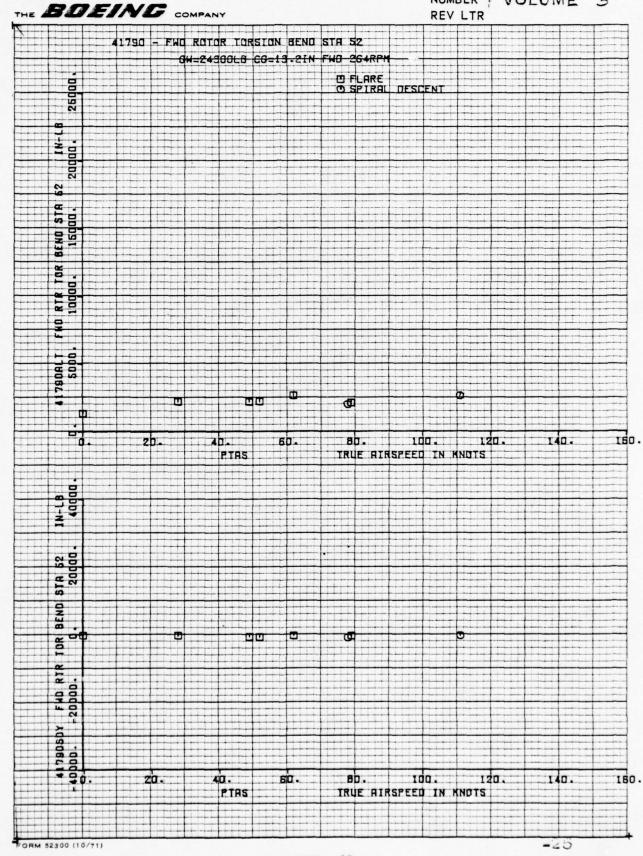
THE BUEINE COMPANY **REV LTR** 1790 - FWO ROTOR TORSION BEND STR 52 SH-24900LB CG-13.2IN FHO TURNS POWER ON 40FF 264RPH 4RPH
O LT TURN PHR ON 2000FT
O RT TURN PHR ON 2000FT
A RT TURN PHR ON >6000FT
+ LT TURN PHR ON >6000FT
X LT TURN PHR OFF 2000FT
O RT TURN PHR OFF 2000FT
TURN PHR OFF >6000FT
X RT TURN PHR OFF >6000FT
X RT TURN PHR OFF >6000FT STR. BEND 150 HO RTR TOR . O O 00 sa. Ida. 50. 140. 160. TRUE ALASPEED IN MNOTS PTAS STA 52 20000. BEND RI FAD R 80. | Ido. | 140. 160. TRUE RIRSPEED IN KNOTS PIAS

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D210-11168-3 NUMBER FVOLUME 3

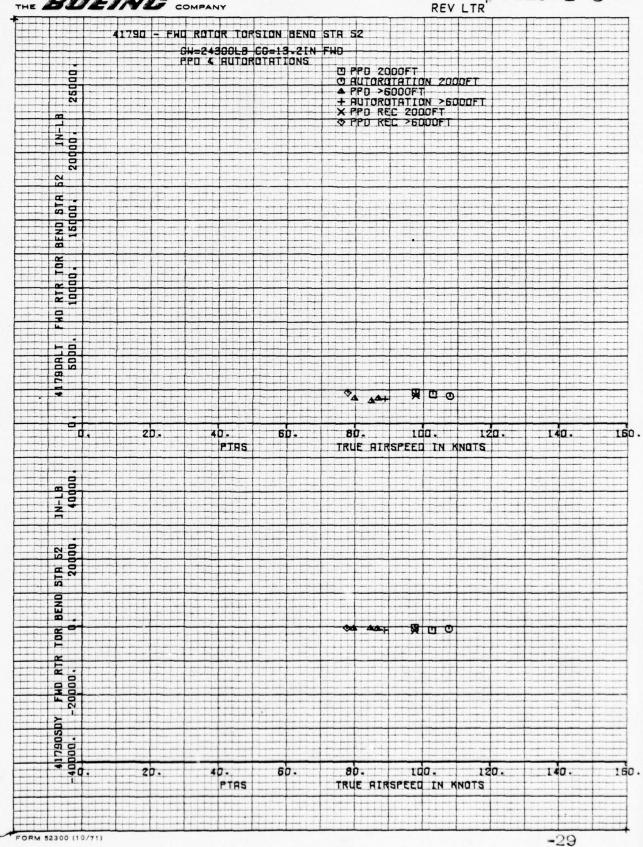


D210-11168-3 NUMBER VOLUME 3

THE BOEINE COMPANY

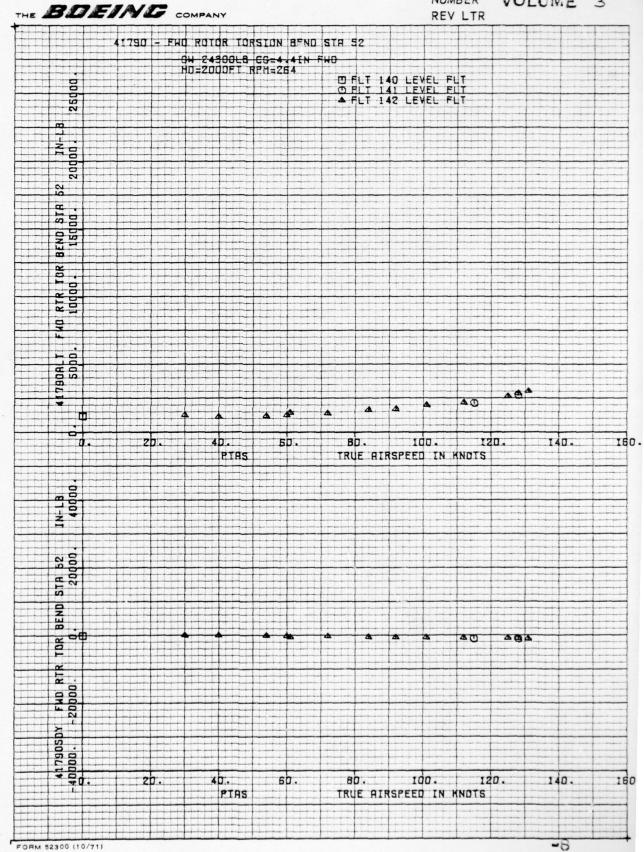
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NUMBER REV LTR

VOLUME 3



D210-11168-3 1

NUMBER VOLUME 3 THE BUEING COMPANY REV LTR 1790 - FWO ROTOR TORSION BEND STA 52 GH=24300LB GG≈4.4IN FWD HD=>6000FT 264RPM DFLT 141 LEVEL FLT BEND STR 15000. 0 0 0 100 0 0 **13** 80. Ida. 140. 160. TRUE HIRSPEED IN MNOTS PTAS BEND 150. TRUE AIRSPEED IN KNOTS THS FORM 52300 (10/71)

D210-11168-3: VOLUME 3

NUMBER

THE BOEING COMPANY REV LTR 1790 - FHO ROTOR TORSION BEND STA 52 CH=243000LB CG=4.4 FND 264RPM PULLUPS POWER ON & OFF D LONG PULLUP PHR ON 2000FT
O CP PULLUP PHR ON 2000FT
LONG PULLUP PHR ON >6000FT
CP PULLUP PHR OFF >5000FT
CONG PULLUP PHR OFF >5000FT
LONG PULLUP PHR OFF 2000FT
X CP PULLUP PHR OFF 2000FT
X CP PULLUP PHR OFF 2000FT 25000 STA 00 BEND 150 TOR RTR T 2 1780ALT 6000. 4 \*\* +A 120. 140-160 -ZD. 40. 50. 80. 100-PTHS TRUE ALASPEED IN MNOTS 1N-LB 40000. STA 52 20000. BE CC + 8 FND R. 41790SDY 40000. 100. 140. 180. 120. 80. PTAS TRUE AIRSPEED IN KNOTS FORM 52300 (10/71) -14

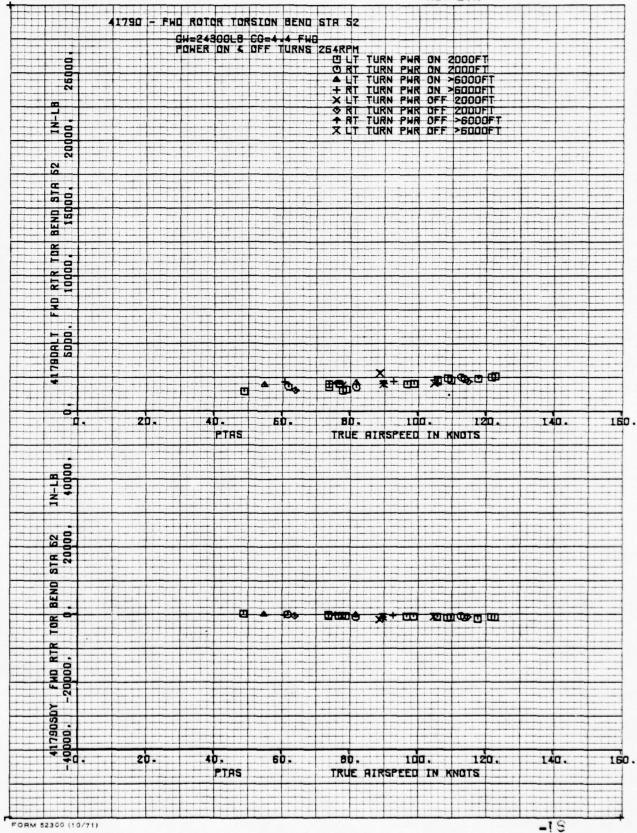
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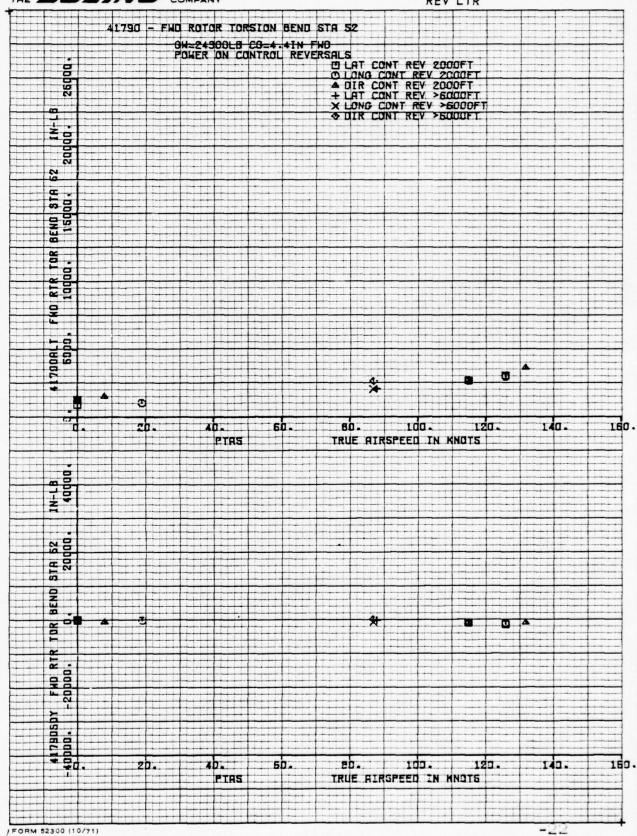
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NUMBER VOLUME 3

THE BOEING COMPANY

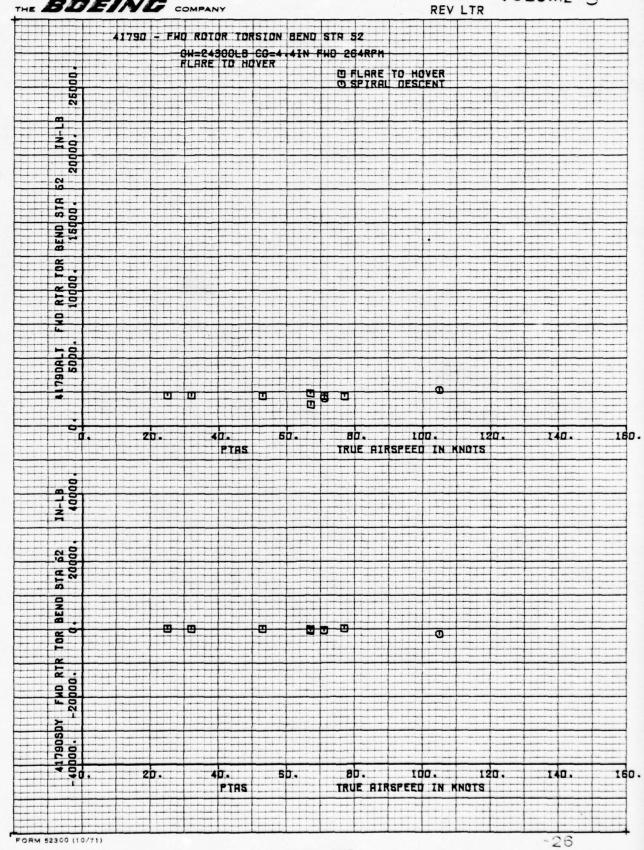
REV LTR





D210-11168-8 NUMBER VOLUME 3

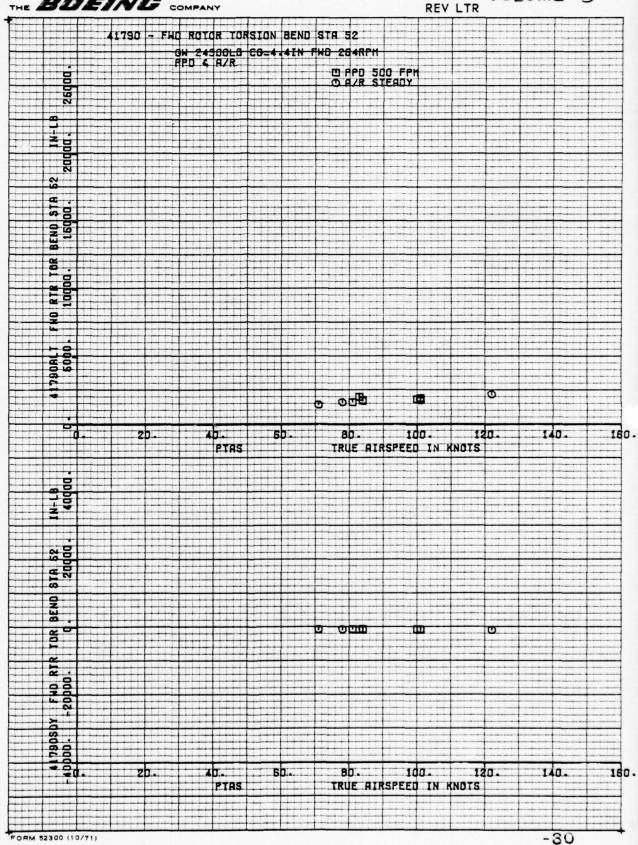
THE BUEING COMPANY

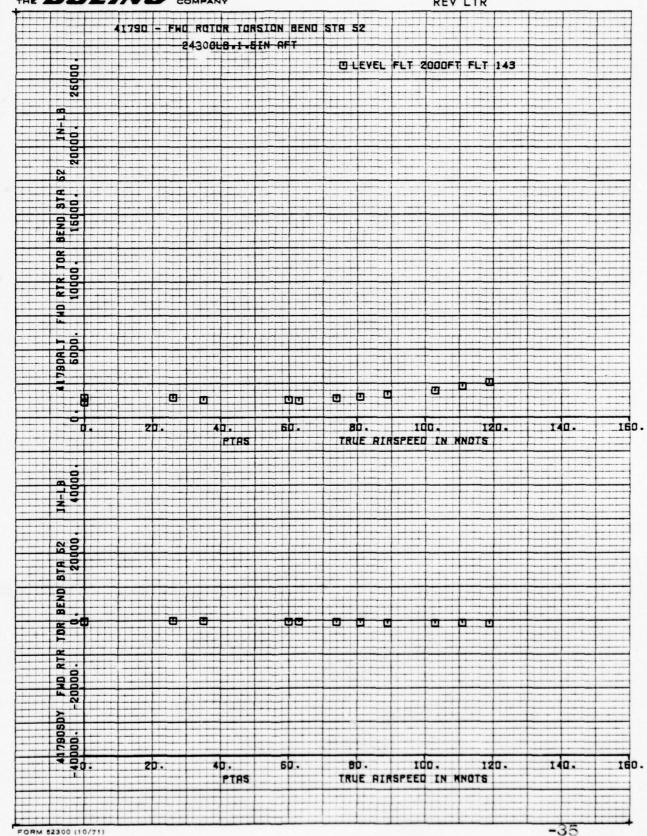


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PREPARED BY: J. Bendo

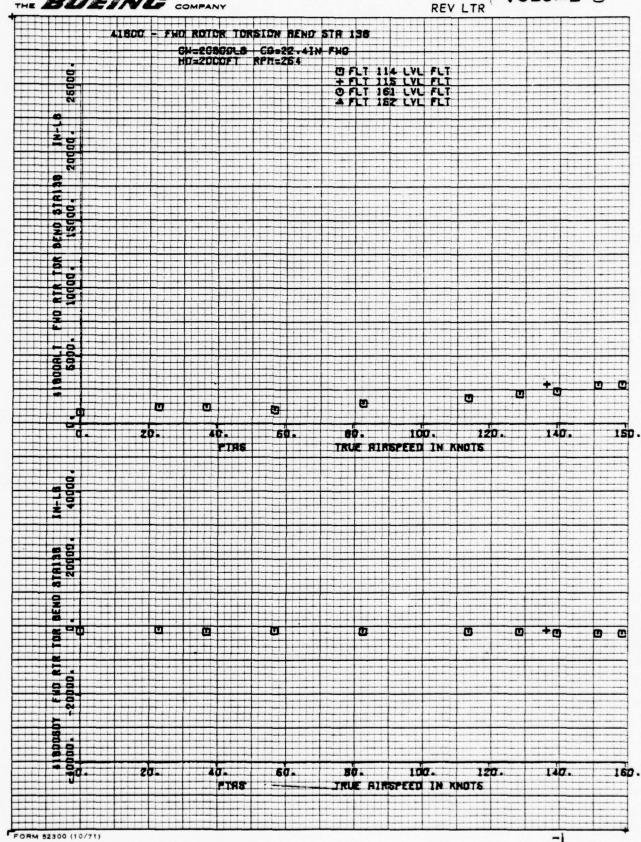
THE BOEING COMPANY DATE:

8/28/78

NUMBER D210-11168-3 REV LTR Volume 3 MODEL NO.

4.5 Forward Blade Torsion Bending Station 138.

THE BOEING COMPANY



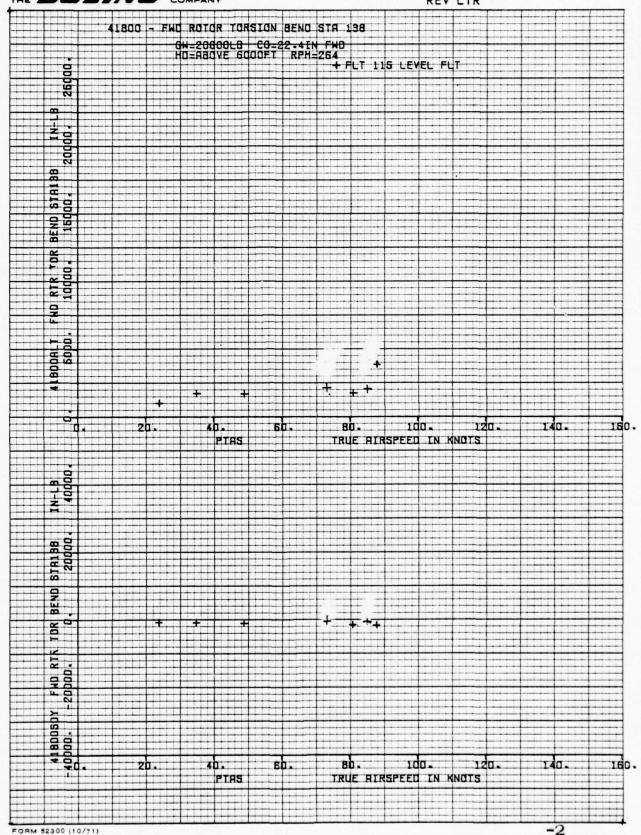
D210-11168-8 VOLUME 3

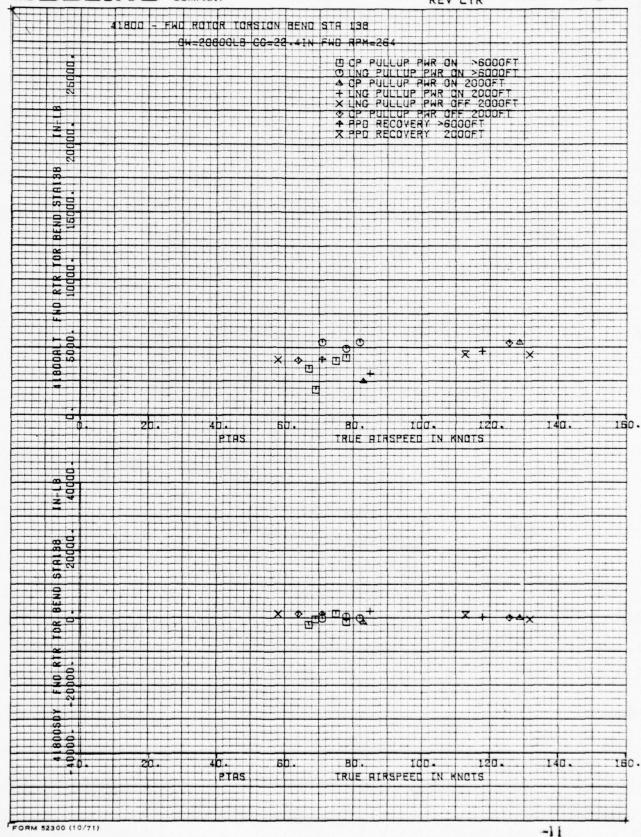
THE BOEING COMPANY

NUMBER REV LTR - FHD ROTOR TORSION BEND STR 198 CH-2CBCOLB CG-22 41N FNO HD=2CCOFT RPH=264 # FLT 114 LVL FLT + FLT 115 LVL FLT # FLT 161 LVL FLT # FLT 162 LVL FLT STR138 BEND 9 SOOR I SOOD. 40 04 9 0 80. 100. 120. 140. 150. TRUE ALRSPEED IN KNOTS PTAS 40 04 140. 40. 80. 80. Ida. PTRS TRUE RINSPEED IN MNOTE FORM 52300 (10/71) -1

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THE BOEING COMPANY REV LTR 41800 - FWO ROTOR TORSION BEND STA 138 GH-20800LB CG-22.4IN FHD RPH-264 URT TURN PHR ON 2000FT
OUT TURN PHR ON 2000FT
ALT TURN PHR OFF 2000FT
FRT TURN PHR OFF 2000FT
XRT TURN PHR ON >6000FT
OUT TURN PHR ON >6000FT
TURN PHR OFF >6000FT
XLT TURN PHR OFF >6000FT 26000 88 STAI RTR TOR 10000. 41800ALT 5000. + 0 BO 1da. 160. 80. TRUE AIRSPEED IN KNOTS STR138 20000 9 BE A MOH T O 160. 80. 100. PTRS TRUE ALRSPEED IN KNOTS

THE BUEING COMPANY 41800 - FWD ROTOR TORSION BEND STR 138 OH 20000LB CO-22.4IN FHO ULAT CONTROL REV 2000FT

OLONG CONTROL REV 2000FT

LAT CONTROL REV 6000FT

LAT CONTROL REV 6000FT

OLONG CONTROL REV 6000FT

LAT CONTROL REV 8000FT

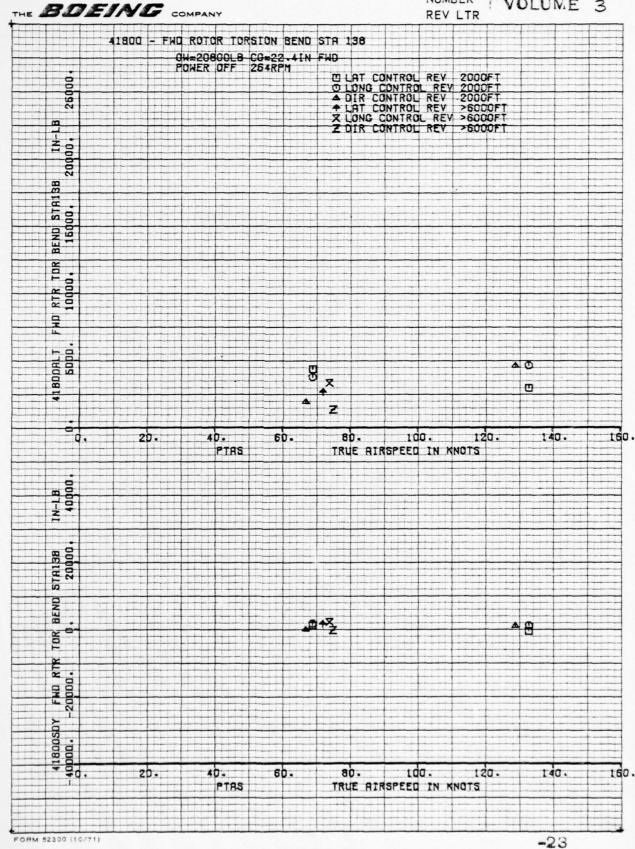
LAT CONTROL REV 8000FT

LAT CONTROL REV >6000FT

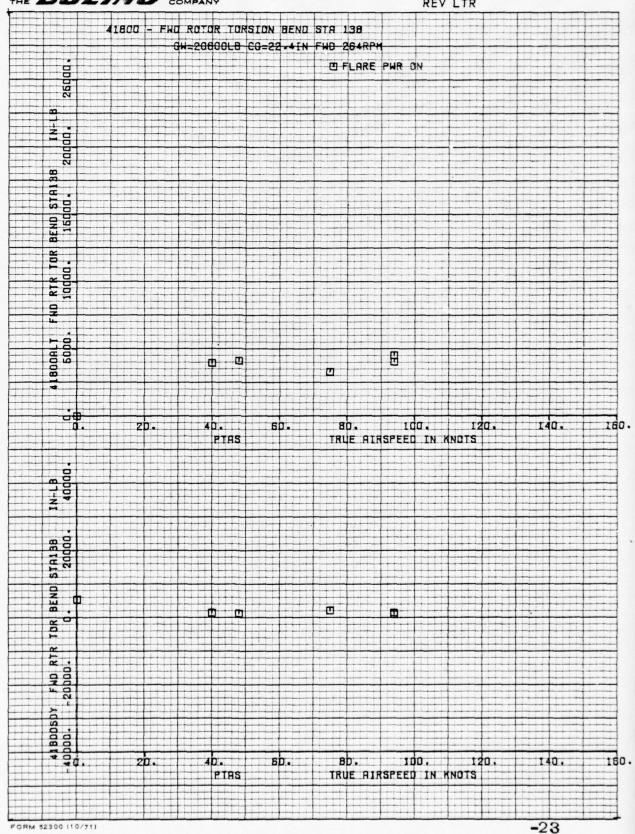
Z LONG CONTROL REV >6000FT

Z GIR CONTROL REV >6000FT 25900. H ST BEND 160 TOR O. RTR 1000 1800ALT 5000. DO. 2 100. 140. 160. 20. 40. 60. 80. PTAS TRUE BIRSPEED IN KNOTS STA138 20000 BEND DO. O RTR FAD R 41800SDY 140. 100. 120. 180. 20. 40. 5b. 80. TRUE AIRSPEED IN KNOTS PTAS -19 FORM 52300 (10/71)

D210-11168-3 NUMBER FVOLUME 3



THE BOEING COMPANY

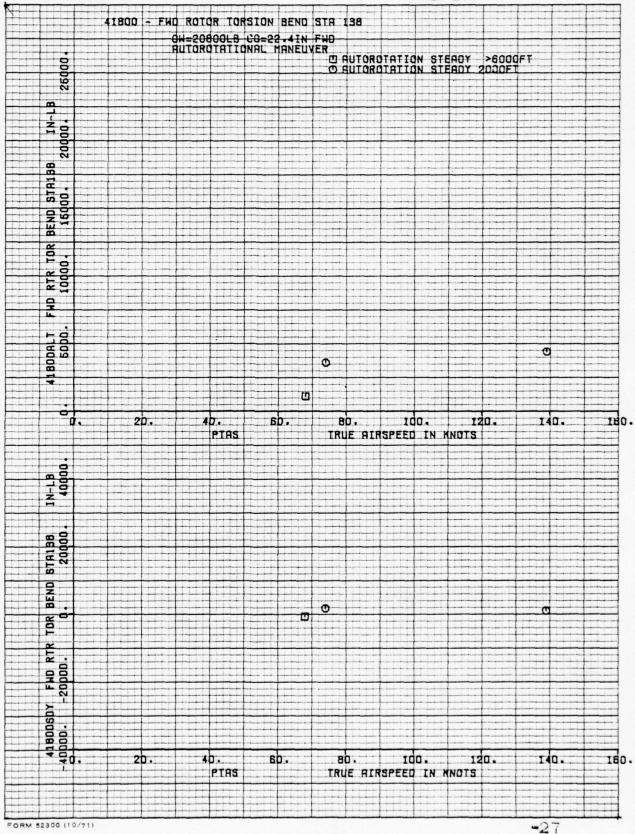


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THE BUEING COMPANY

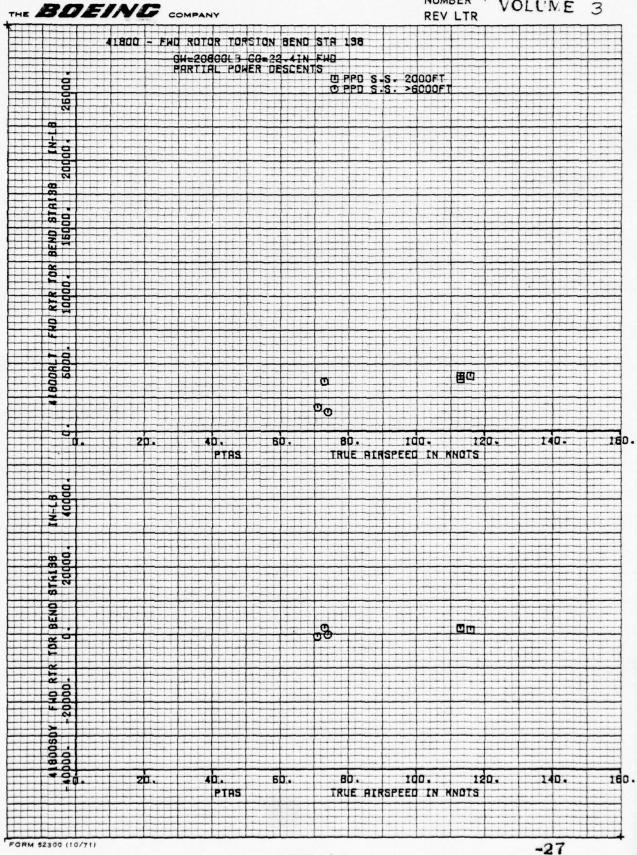
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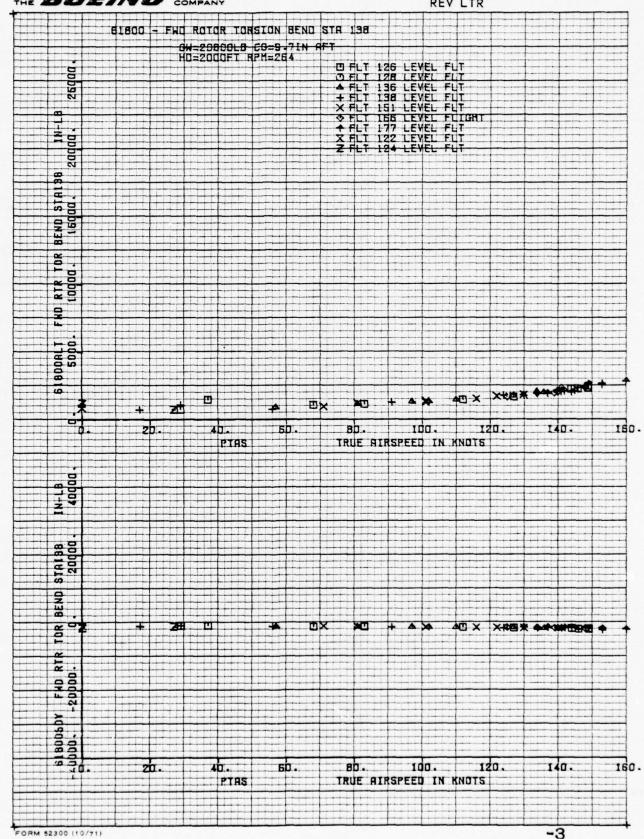
D210-11168-3 NUMBER . VOLUME 3

**REV LTR** 



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D210-11168-3 NUMBER F VOLUME 3

THE BOEING COMPANY REV LTR 61800 FUU ROTOR TORSION BENO STR 138 GH=20800LB C0=9.7IN RFT HD=6000FT RPM=264 © FLT 124 LEVEL FLT

© FLT 127 LEVEL FLT

• FLT 137 LEVEL FLT

+ FLT 139 LEVEL FLT

× FLT 151 LEVEL FLT

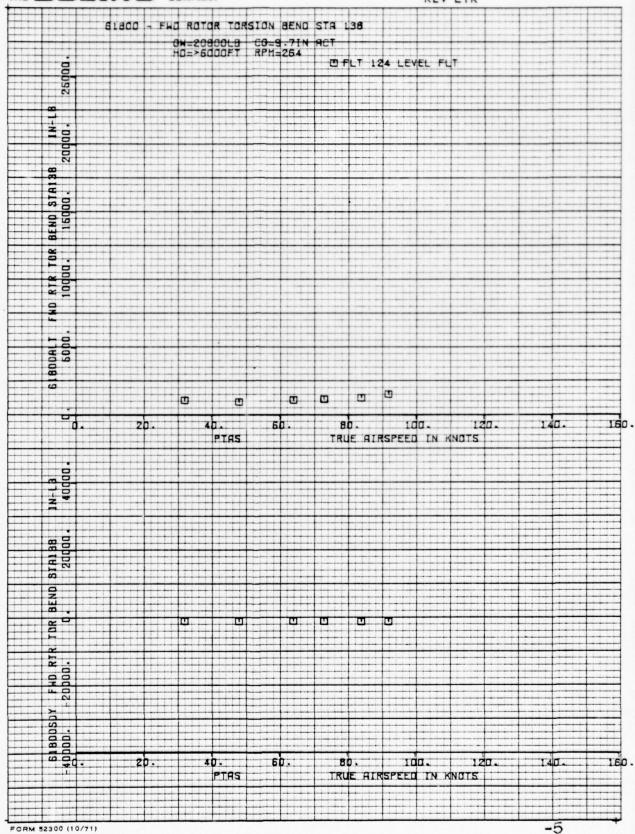
• FLT 177 LEVEL FLT 25000 ZOCOC. STR138 BEND FND RTR TOR 800A.T 5000. C C AXX X BX C 4/200 A A 450 C C 0 80. | 1da. | 12a. 140. 160. 40. 6D. PTHS TRUE HIRSPEED IN KNOTS STR1 88 20000 BEND U 0 AXX X BXO 4000 A AB AB B 400 6

PTAS

60. 80. 1da. 12a.

TRUE AIRSPEED IN KNOTS

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VOLUME 3 NUMBER

THE BOEING COMPANY

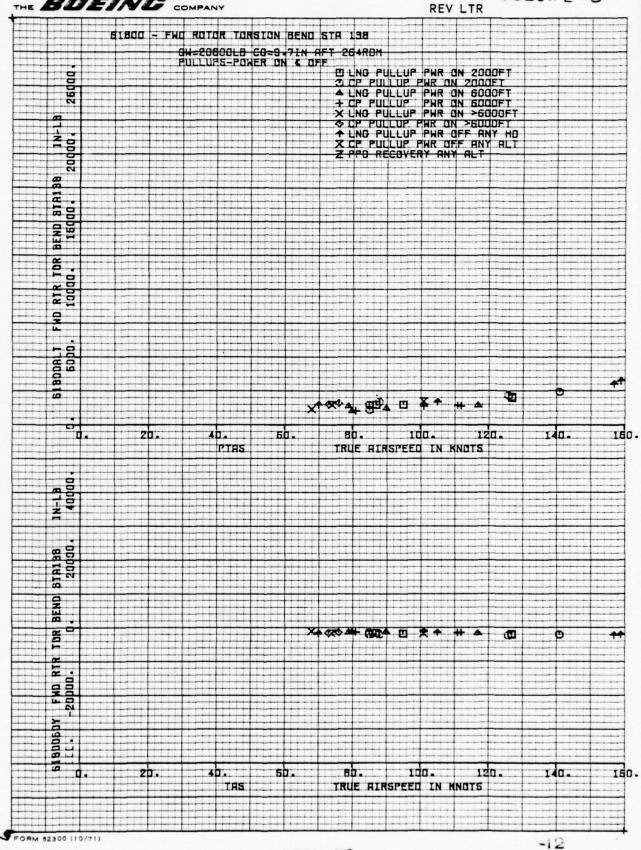
FORM 52300 (10/71)

AD

d.b

REV LTR 51800 - FHO ROTOR TORSION BEND STR 138 20800LB 9.71N AFT 248 RPH O LEVEL FLIGHT 6000 FT STA138 IN-L FHD RTR TOR . 1800ALT 5000. O क्य ग (11) 80. 100. 120. 140. 40. 160. PIRS TRUE HIRSPEED IN KNOTS STA138 20000. DY FHD RTR TOR 6 0 180080 ab. 100. 120. 160. PTAS TRUE AIRSPEED IN KNOTS

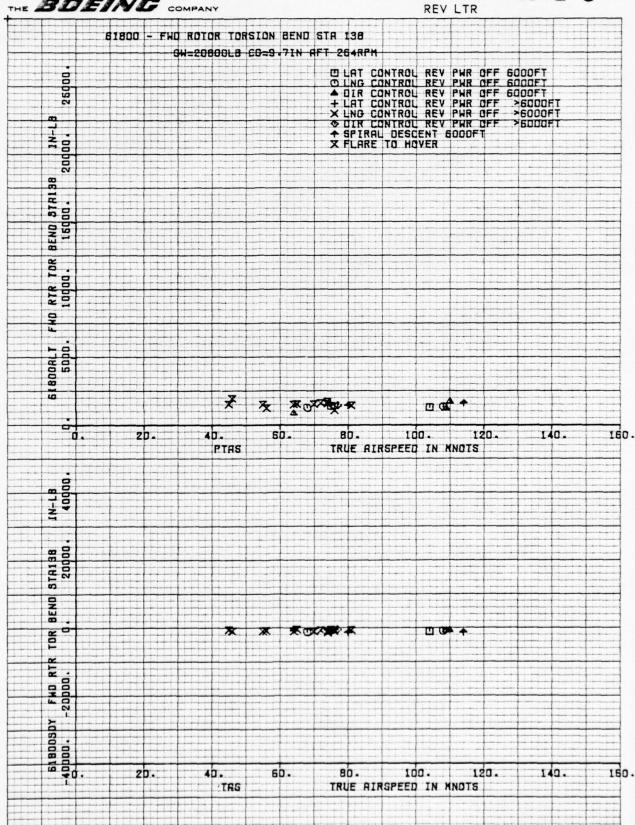
THE BOEING COMPANY



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THE BOEING COMPANY REV LTR 81800 - FWO ROTOR TORSION BEND STA 198 26000. I N I H 8T 00 BEND 160 F 00 2 14. BDDALT 5000. 9 450 E CX4 ACTO 8b. 100-160. 40. 120. PIRS TRUE RIRSPEED IN MNOTS STR13B 20000 BEND **4 9** RI 8008 80. | 100. | 120. \*D. 160. TRUE AIRSPEED IN KNOTS

THE BOEING COMPANY



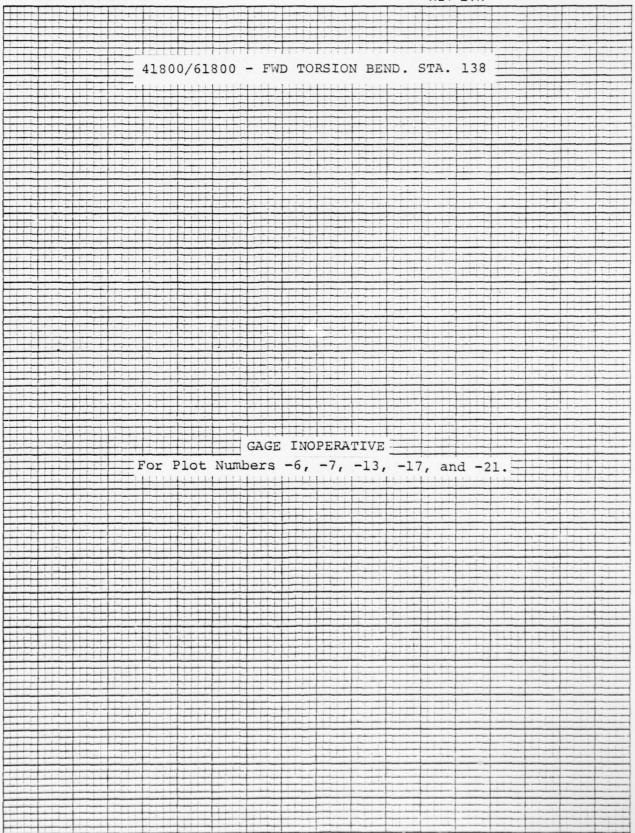
D210-11168-3

THE BOEING COMPANY REV LTR - FWO ROTOR TORSION BEND STA 198 CH=20800LB CO=9.7IN AFT 264RPM U A/R STEADY 5000FT O A/R STEADY >6000FT A PPD 6000FT + PPD >6000FT 25000 STA138 BEND 150 13000. 2 BODALT FM EDDD. 9 M 4 D 80. 100. 120. 140. 150 -PTAS TRUE HIRSPEED IN KNOTS 1N-LB STR138 20000 BEND AA AU r FKD RTR -20000. 110. 140. 100. 120. 80. IED. TRUE FIRSPEED IN KNOTS FORM 52300 (10/71) -23

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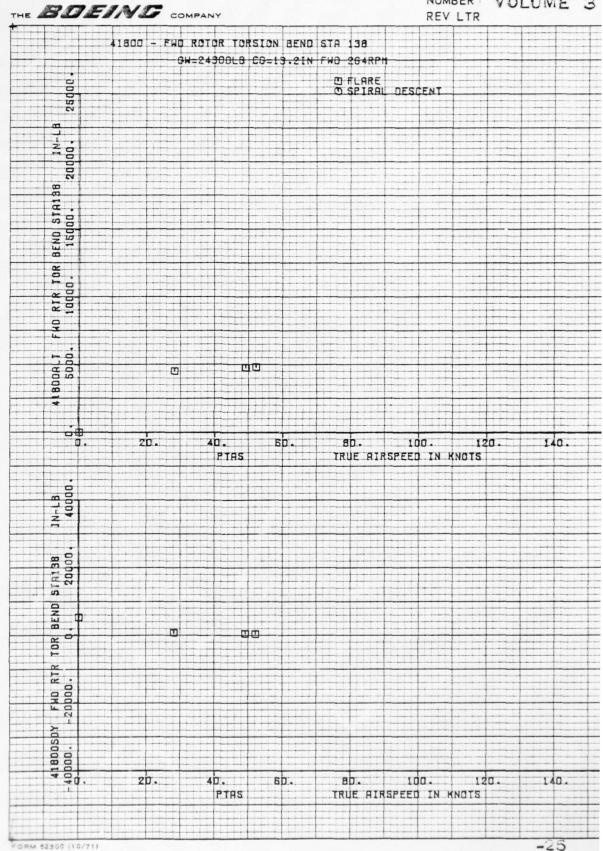
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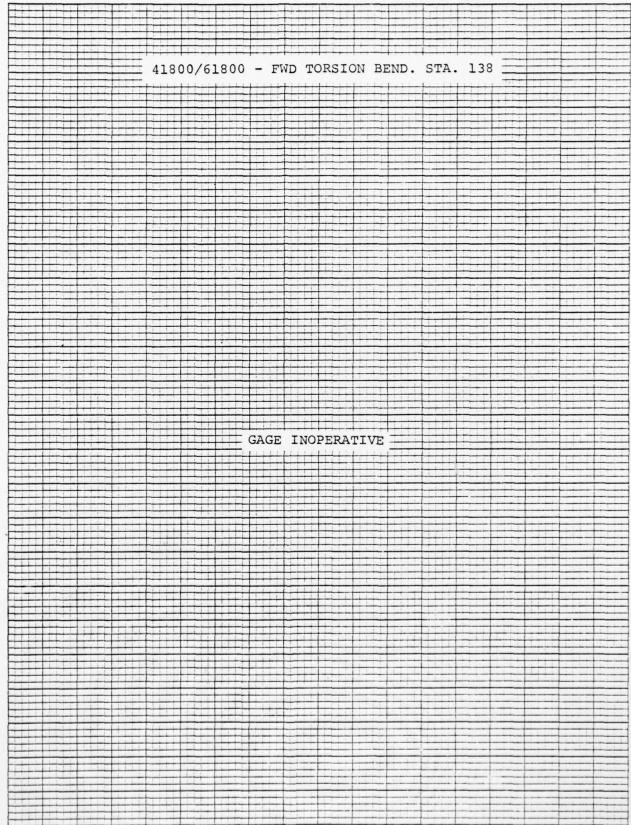
FORM 52300 (10/71)



D210-11168-3

NUMBER VOLUME 3

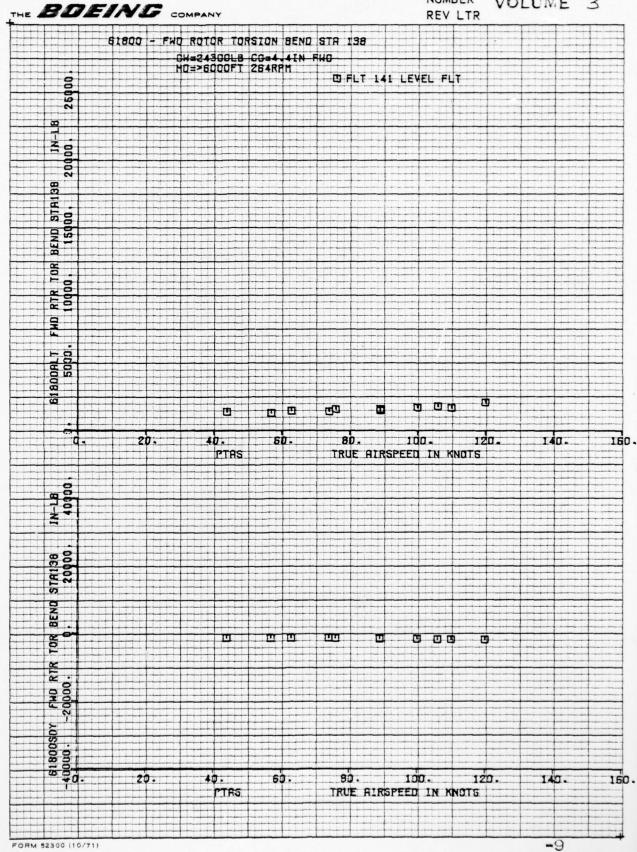




D210-11168-3 NUMBER VOLUNE 3

THE BUEING COMPANY REV LTR 61800 - FWO ROTOR TORSION BEND STR 138 OW 24300LB CG=4.4IN FWD HD=2000FI RPM=264 D FLT 140 LEVEL FLT D FLT 141 LEVEL FLT A FLT 142 LEVEL FLT 25000. H. ST BEND 150 1800ALT 5000. 404 80. 1da. 12a. 160. TRUE AIRSPEED IN KNOTS STR138 20000 40 404 Ida. 160. TRUE AIRSPEED IN MNOTS PTAS FORM 52300 (10/71) -8

3



TRUE HIRSPEED IN KNOTS

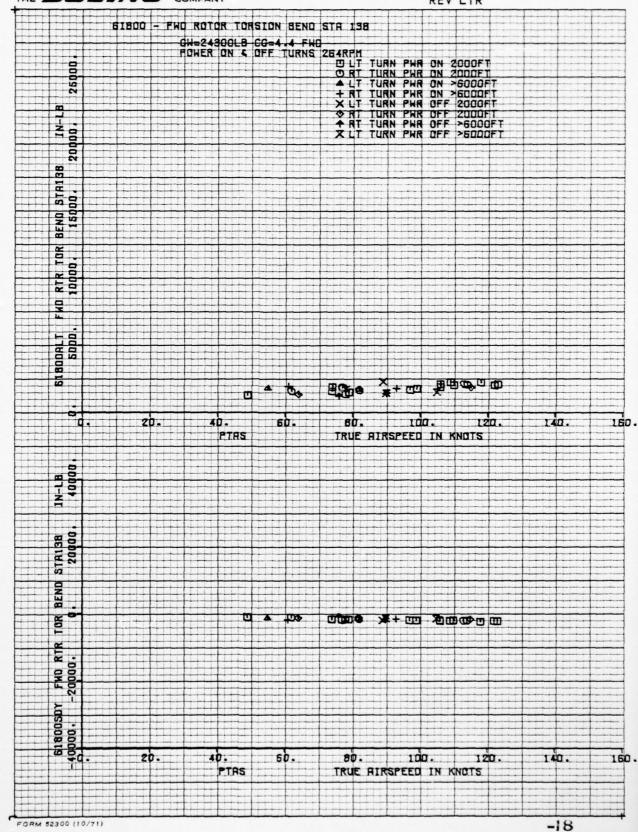
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PTHS

FORM 52300 (10/71)

THE BOEING COMPANY

NUMBER ' VOLUME 3



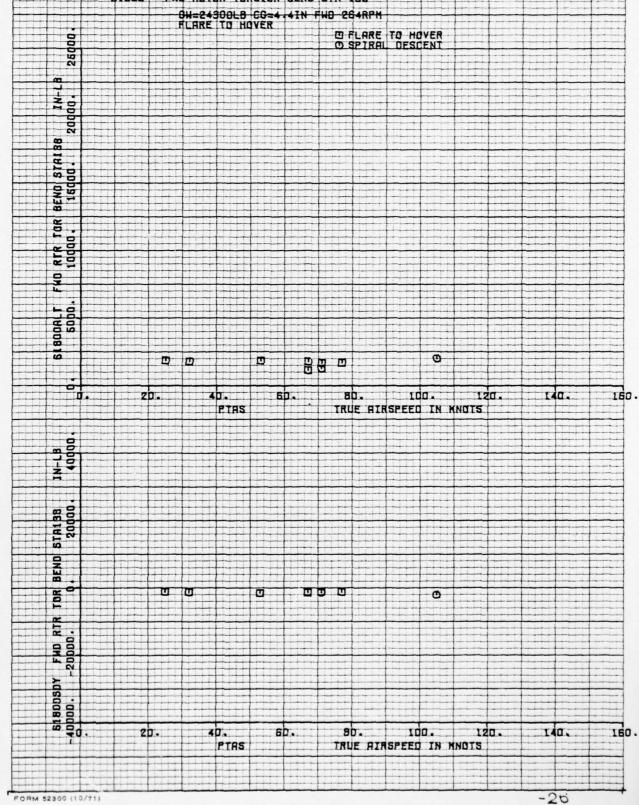
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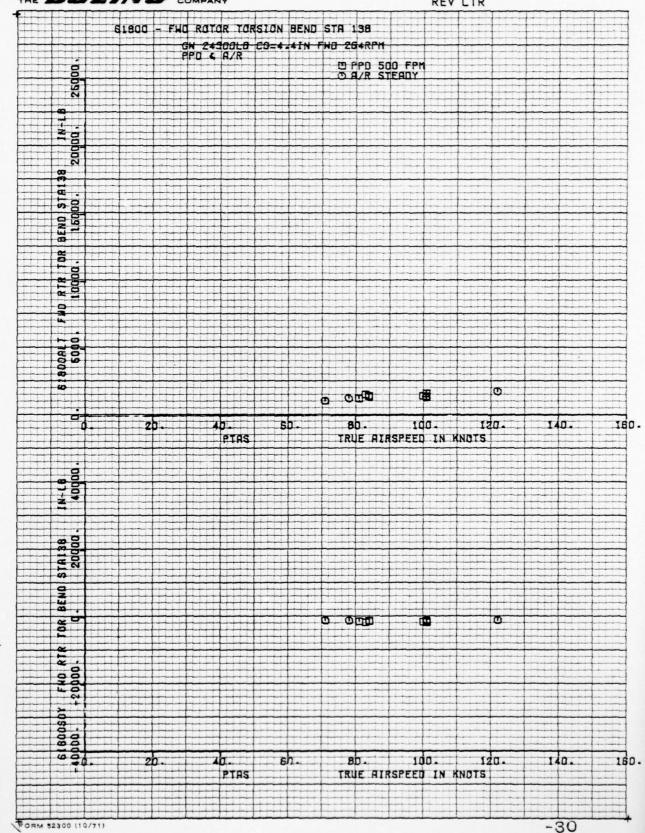
NUMBER VOLUME 3 THE BUEING COMPANY REV LTR 61800 - FWO ROTOR TORSION BEND STR 138 GH-24300LB CG-4.4IN FHD FOMER ON CONTROL REVERSALS SALS
BLAT CONT REV 2000FT
CLONG CONT REV 2000FT
DIR CONT REV 2000FT
LAT CONT REV >6000FT
X LONG CONT REV >6000FT
OUR CONT REV >6000FT 26000 200 BEND STRI RTR TOR 9 I BOORL T 5000. 0 10 8 20. 80. 100-120. 140. IBO. 411. PTHS TRUE RIRSPEED IN KNOTS JN-LB STR138 20000 BEND 0 R Y FWD RT \$180080Y 160. 47. 50. 90. 100. 120. 143. PTAS TRUE RIRSPEED IN MNOTS

FORM 52300 (10/71)

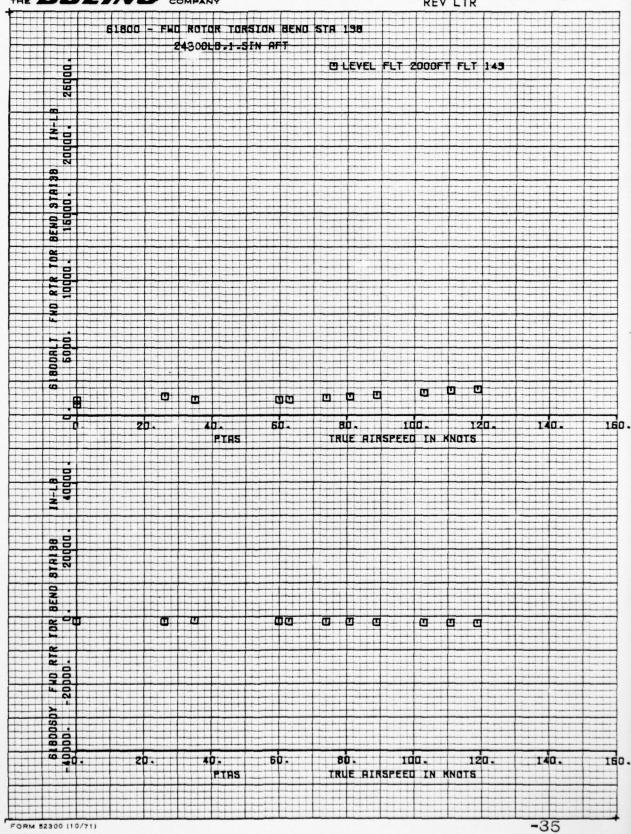
D210-11168-3

VOLUME 3 NUMBER THE BOEING COMPANY REV LTR 61800 - FHO ROTOR TORSION BEND STA 138 SH=24300LB CG=4.4IN FHD 264RPH





D210-11168-3 NUMBER 1 VOLUME 3



PREPARED BY: J. Bendo

THE BOEING COMPANY DATE:

8/28/78

NUMBER D210-11168-3 REV LTR Volume 3

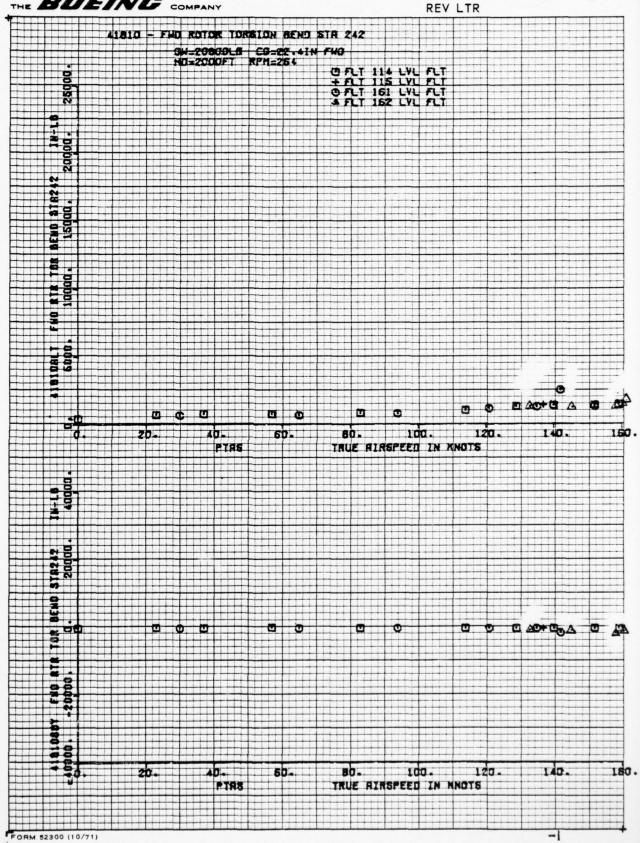
MODEL NO.

4.6 Forward Blade Torsion Bending Station 242.

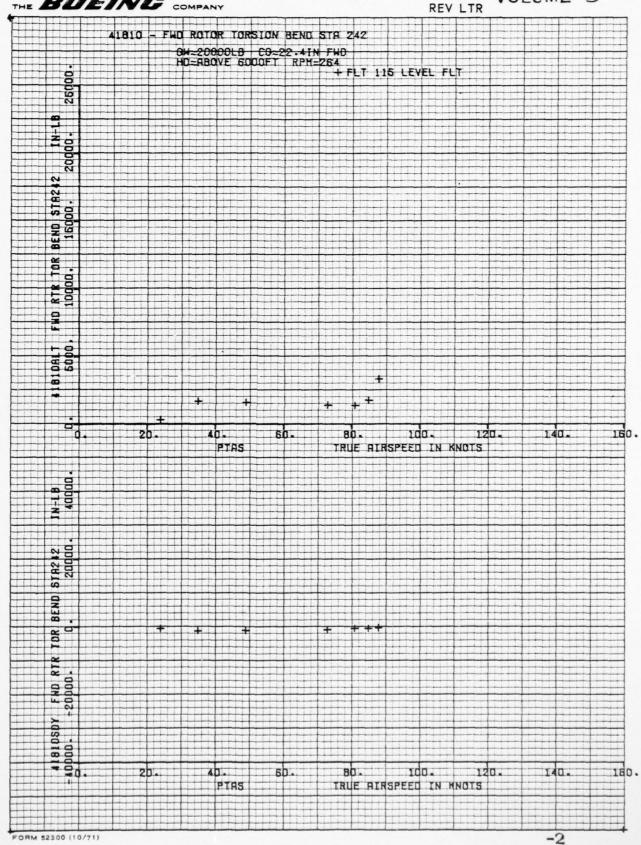
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42

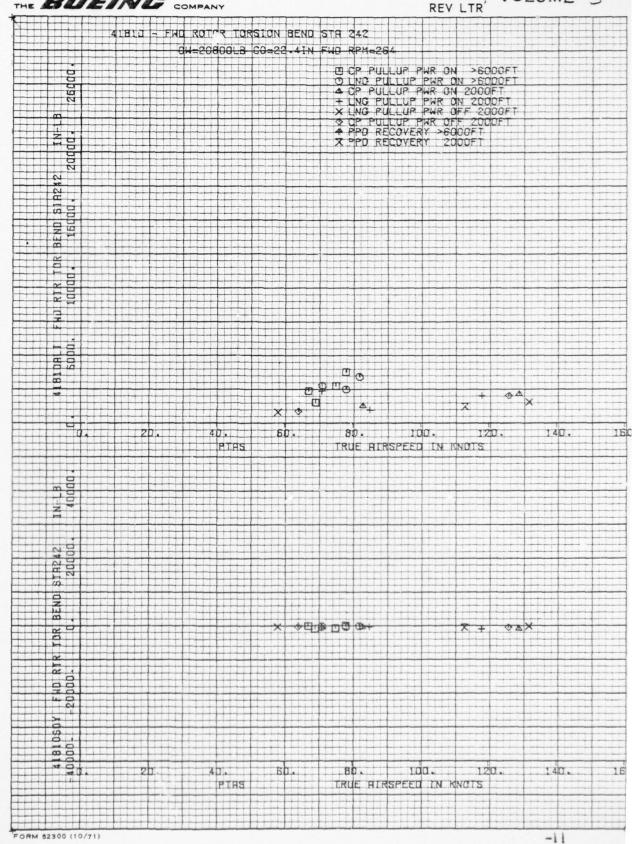
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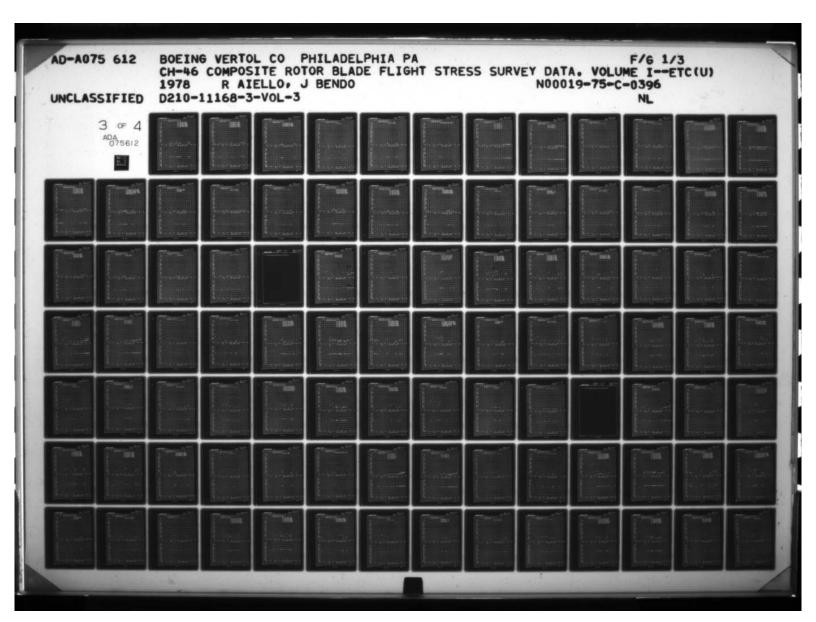


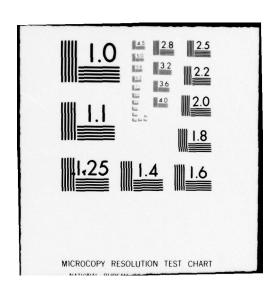
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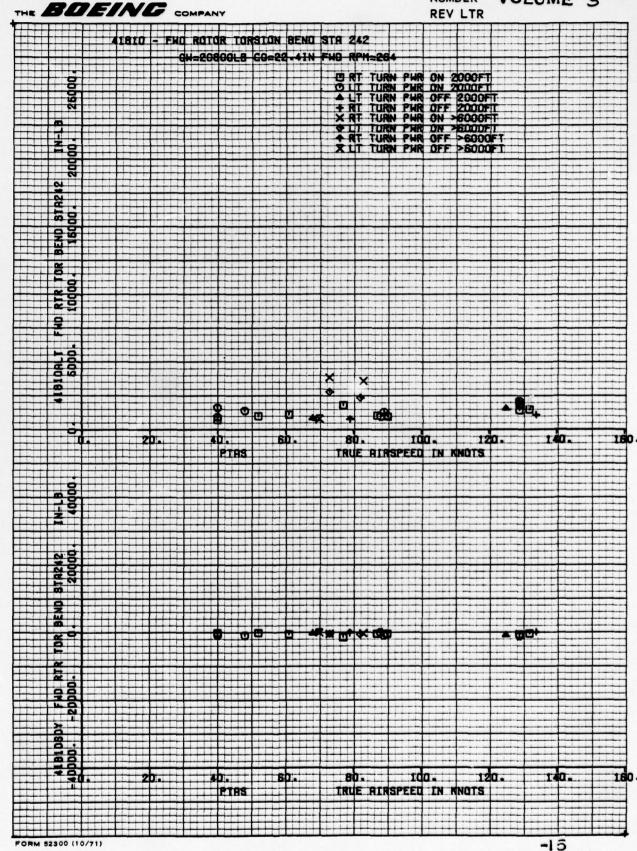
NUMBER | VOLUME 3

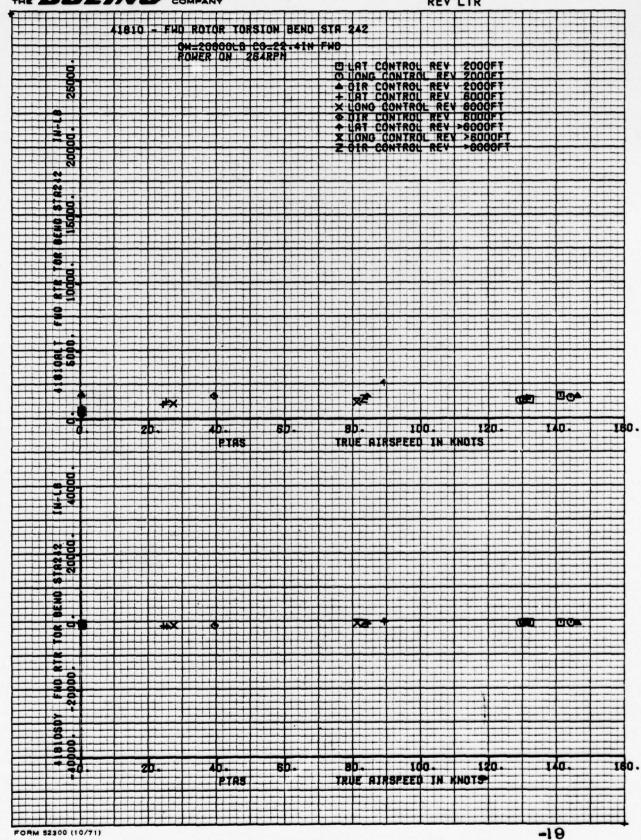






D210-11168-3 NUMBER VOLUME 3





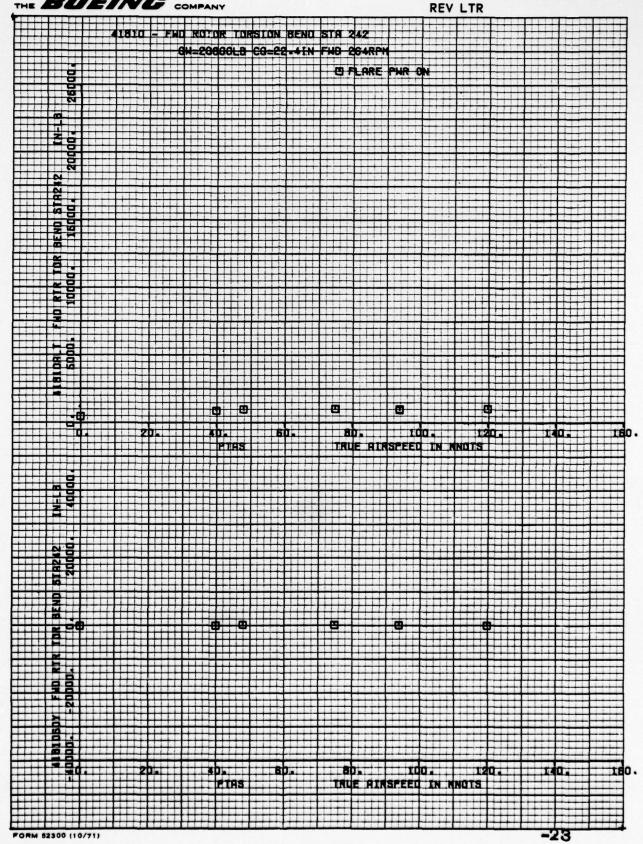
D210-11168-3 VOLUME 3

NUMBER REV LTR

THE BOEING COMPANY 41810 - FNO ROTOR TORSION BEND STR 242 0H=20600L8 C0=22.41N FHO FOHER OFF 264RFM DLAT CONTROL REV 2000FT
O LONG CONTROL REV 2000FT
O LAT CONTROL REV 2000FT
+ URT CONTROL REV >6000FT
X LONG CONTROL REV >6000FT
Z OIR CONTROL REV >6000FT 40 AD THE 100 THO. 40. TRUE AIRSPEED IN MNOTS FTAS 100. 20. TRUE RIRSPEED IN KNOTS PTAS -23 FORM 52300 (10/71)

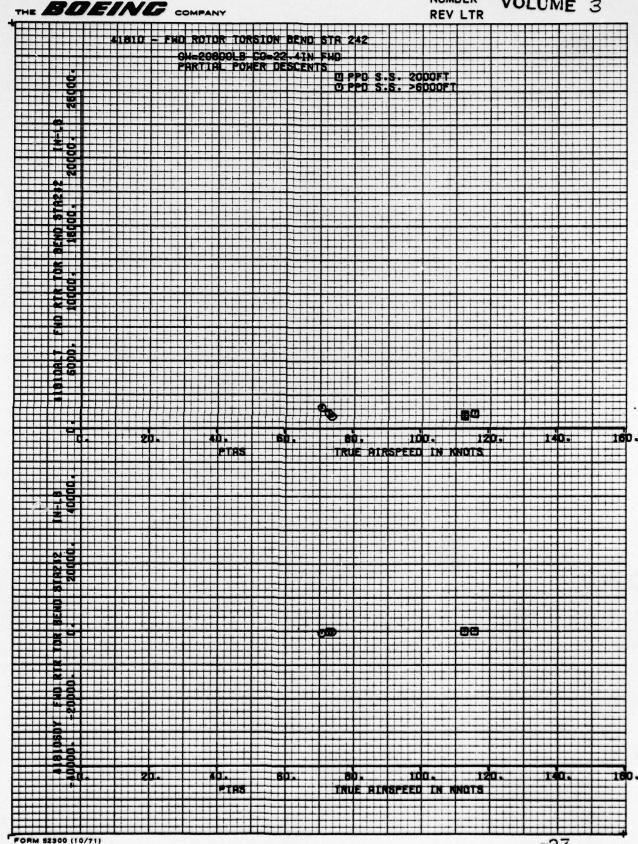
D210-11168-3 VOLUME 3

NUMBER



NUMBER

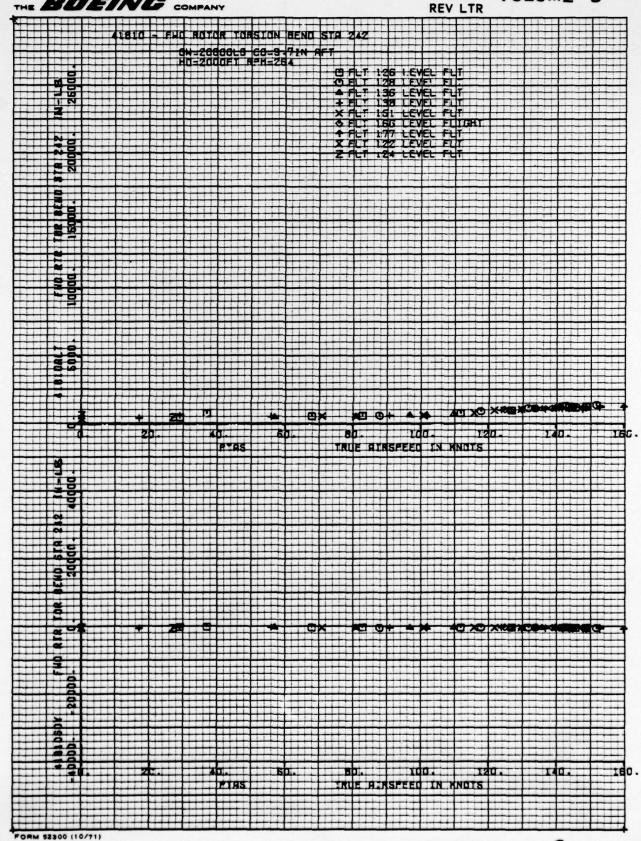
D210-11168-3 VOLUME 3 REV LTR



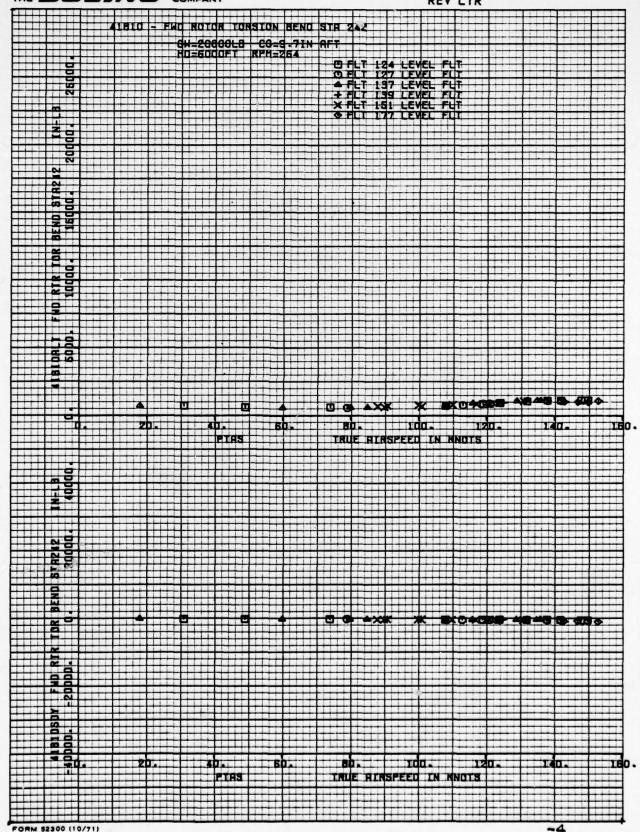
NUMBER THE BOEING COMPANY REV LTR 1810 - FWO ROTOR TORSION BEND STR 242 GH-20600LB CO-22-4IN FHO AUTOROTATIONAL MANEUVER U AUTOROTATION STEADY >6000FT 50 B 0 0 TRUE RIRSPEED IN MNOTS PTRS 100. TRUE RENSPEED IN MNOTS PTRS

FORM 52300 (10/71)

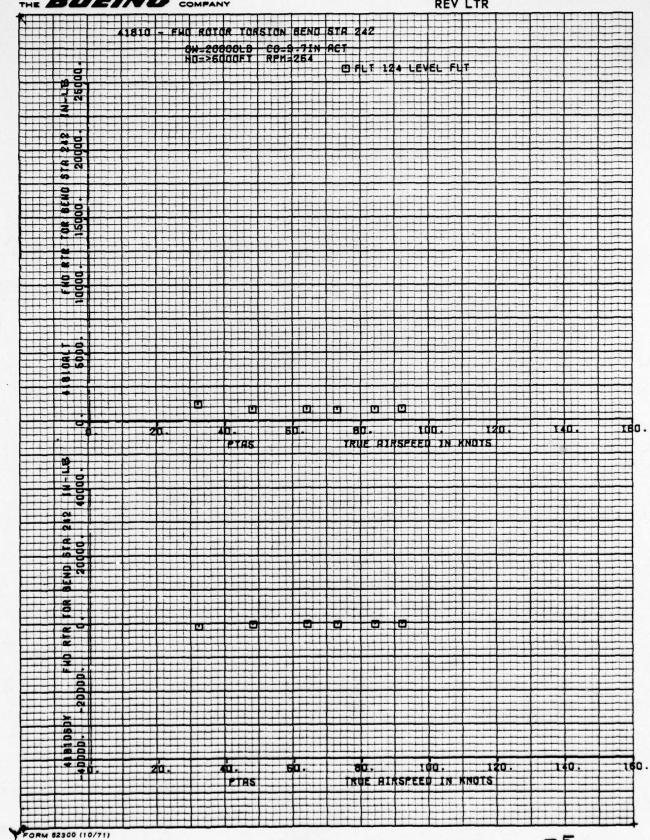
D21C-11168-3 NUMBER VOLUME 3



D210-11168-3 NUMBER | VOLUME 3

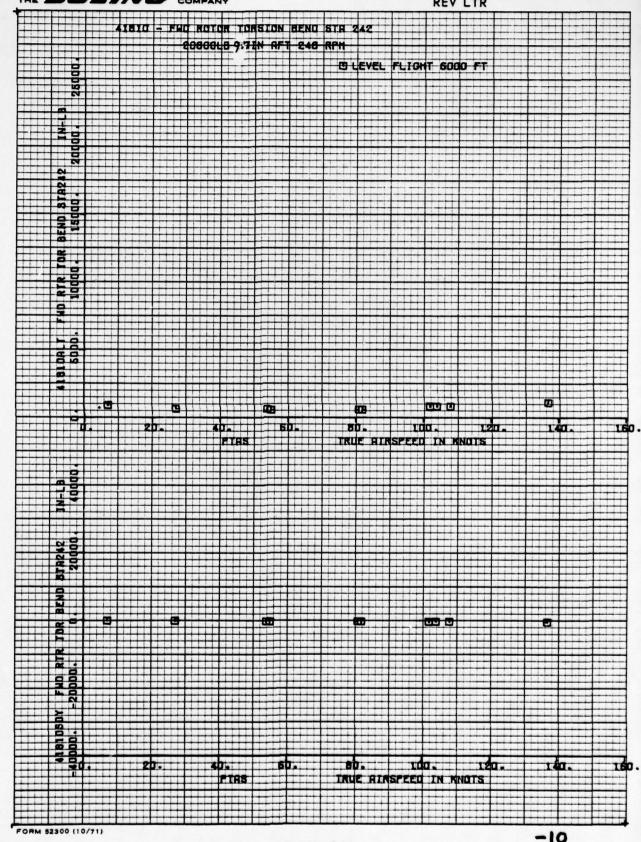


D210-11168-3 NUMBER TVOLUME 3 **REV LTR** 



D210-11168-3 VOLUME 3

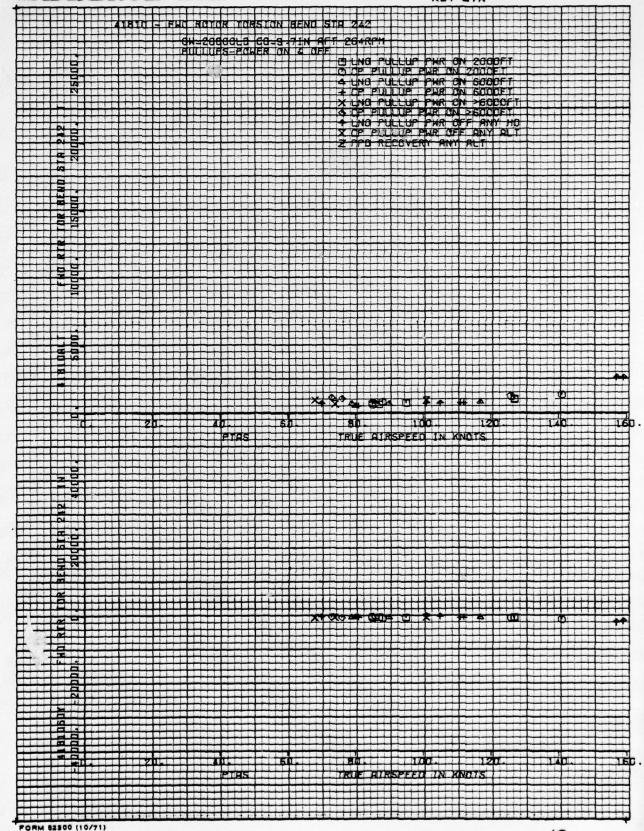
NUMBER REV LTR



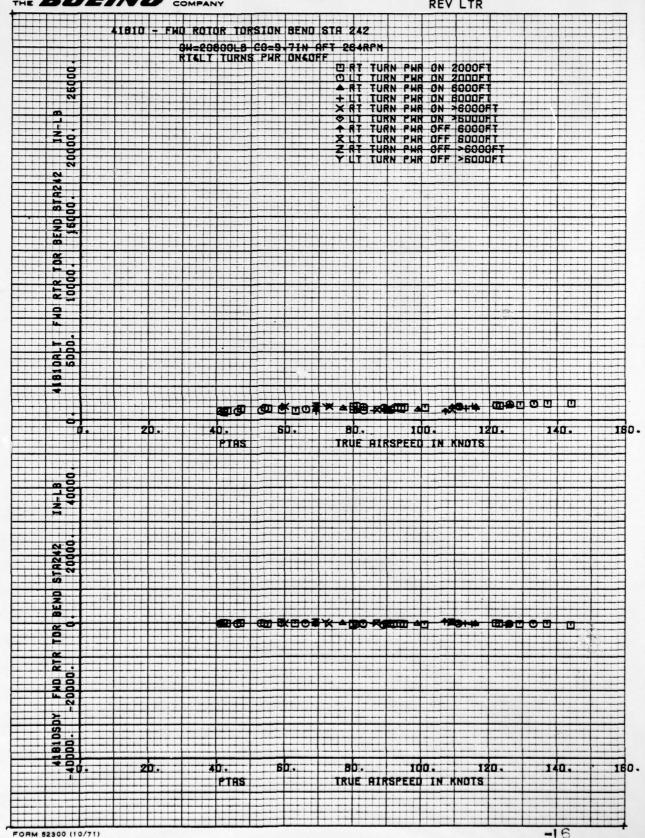
THE BUEING COMPANY

41

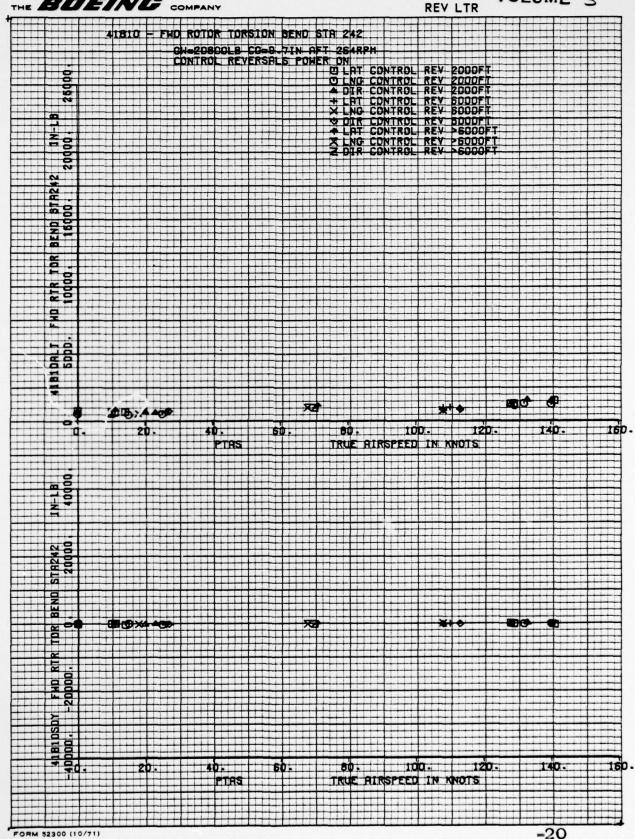
NUMBER REV LTR



NUMBER | VOLUME 3



D210-11168-3 NUMBER ! VOLUME 3

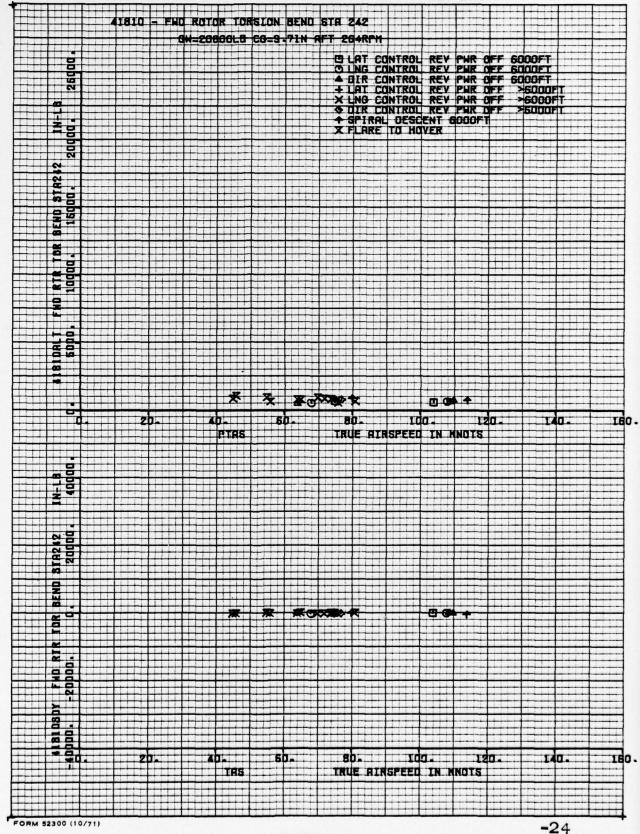


D210-11168-3

NUMBER VOLUM

THE BOEING COMPANY

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D210-11168-3 VOLUME 3 NUMBER **REV LTR** 

THE BOEING COMPANY

1810 - FHU ROTOR TORSION BEND STR 242 H-2000LB CO-8 7IN AFT 264RPM © A/R STEADY 5000FT © A/R STEADY >5000FT ▲ PPD 6000FT + PPD >6000FT **Q** BIDALT SOPO. \_\_\_\_ 180. TRUE AIRSPEED IN MOTE PTAS STR242 20000. 4 4 81 0 5 0 v 140. TRUE RIRSPEED IN MOTS ITT6 FORM 52300 (10/71)

D210-11168-3 VOLUME 3

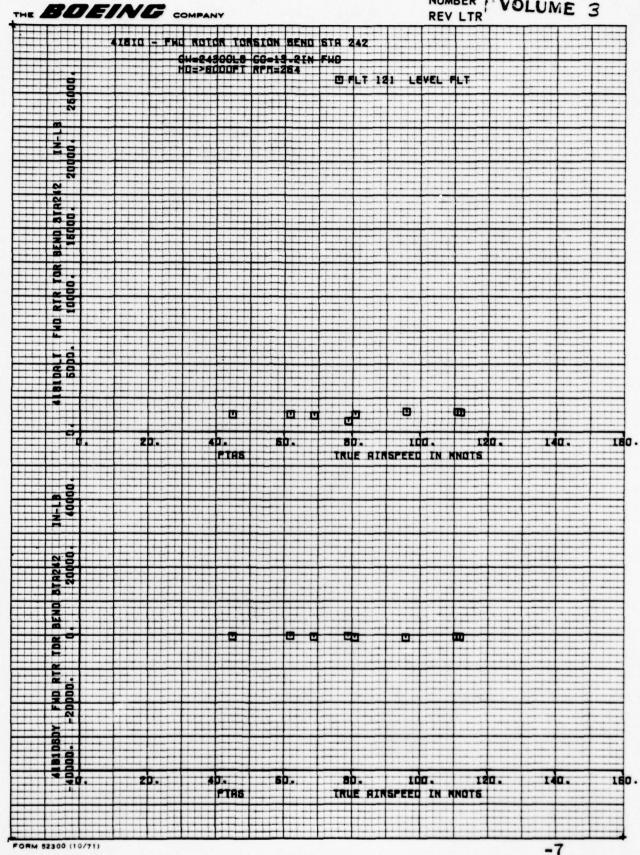
-6

NUMBER THE BOEING COMPANY **REV LTR** 1810 - FHO ROTOR TORSION BEND STA 242 0H=24900L8 CG=13.2EN FWO OFLY 117 LEVEL FLT A FLT 121 LEVEL FLT 2 0 4 0 B OA • 80. AD. Lda. PTAS TRUE AIRSPEED IN HNOTS BEND 0 RIE . F ND 8 86. Lda. 12a. TRUE RIRSPEED IN MNOTS PTAS

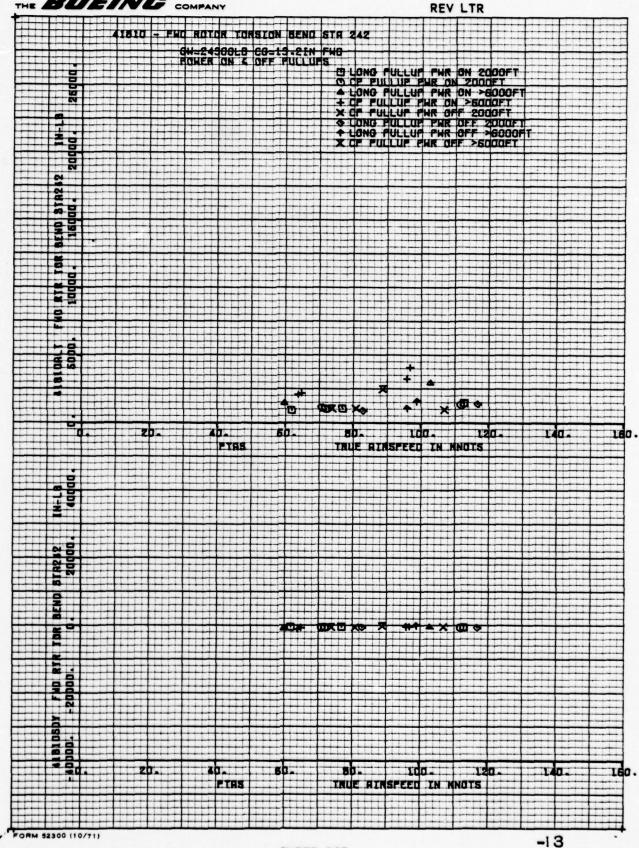
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FORM 52300 (10/71)

D210-11168-3 NUMBER F VOLUME 3



D210-11168-3 ! VOLUME 3 NUMBER



FORM 52300 (10/71)

1810 - FHO ROTOR TORSTON BEND STR 242 W-24900LB CO-19 ZIN FHO LURNS POWER ON 40FF 264RPH THE TURN PHR ON 2000FT ORT TURN PUR ON 2000FT

ART TURN PUR ON 36000FT

HIT TURN PUR ON 36000FT

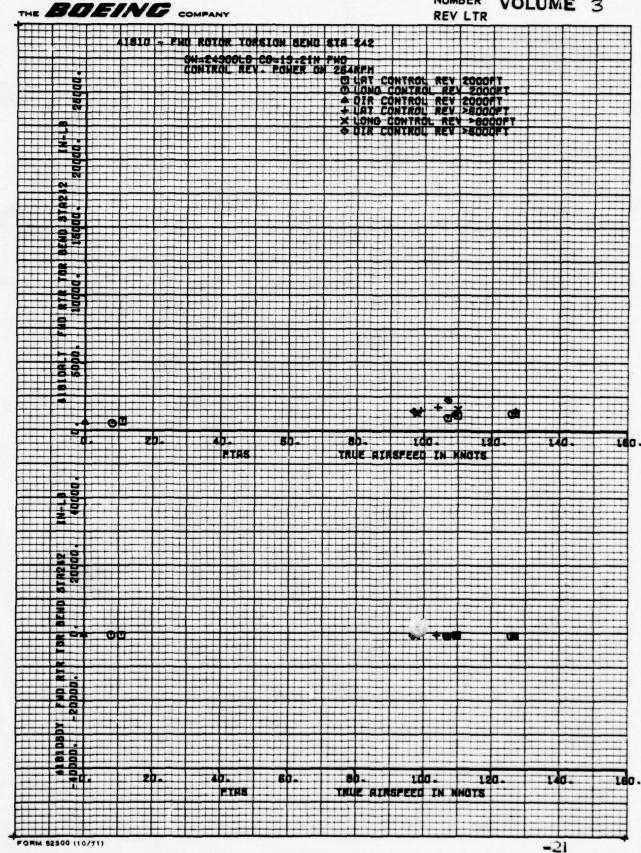
VIT TURN PUR OFF 2000FT

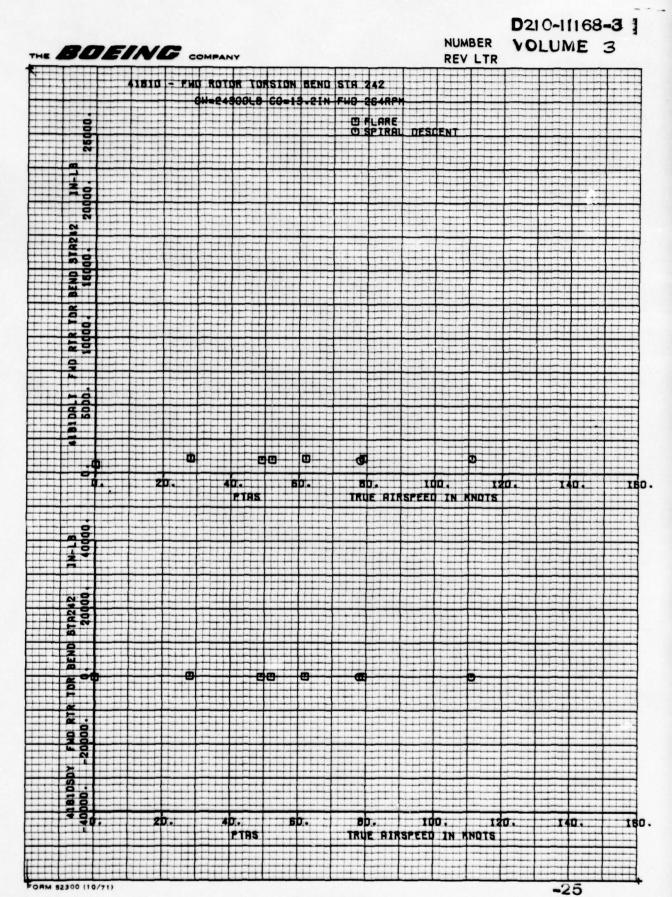
ORT TURN PUR OFF 2000FT

TURN PUR OFF 36000FT

X RT TURN PUR OFF >6000FT 80. 100. 180. PTAS TRUE AIRSPEED IN MNOTS TRUE HIRSPEED IN MNOTS PTRS

D210-11168-3 NUMBER VOLUME 3





D210-11168-3

NUMBER VOLUME 3

REV LTR

A1810 - FHD ROTOR TORSION BEND STR 242

GH-24300LB CG-19-27 FH0

FFD 4 HUTDROTRITIONS

G 9FD 2000FT

G HUTDROTRITION 2000FT

R 1 + HUTDROTRITION >5000FT

R 2 + FFD REC >5000FT

R 3 + FFD REC >5000FT

R 5 + FFD REC >5000FT

R 7 + FFD REC >5000FT

R 8 + FFD REC >5000FT

R 9 + FFD REC >5000FT

> 80. 100. 120. 140. TRUE ALRSPEED IN MOOTS

160.

-29

SHEET 213

PTAS

-40000. -40000.

FORM 52300 (10/71)

D210-11168-3 NUMBER : VOLUME 3

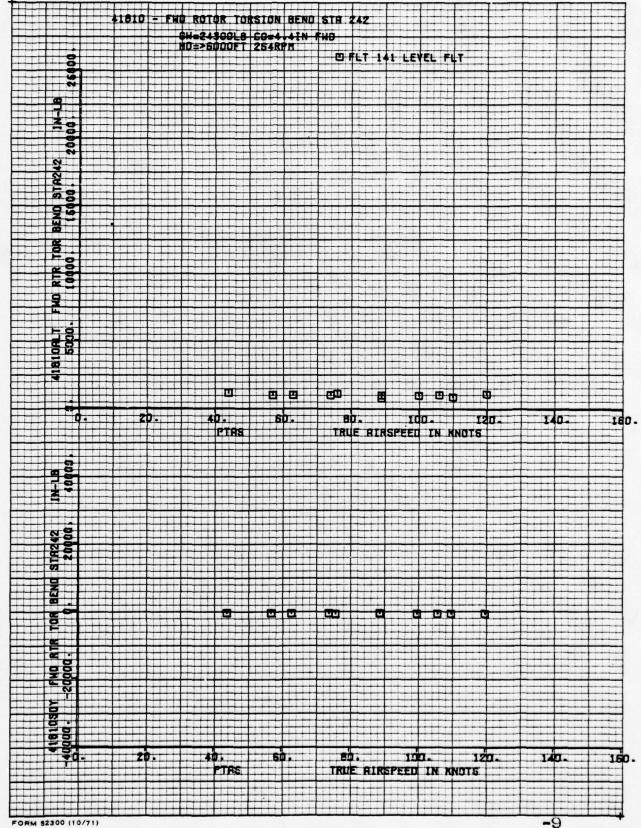
THE BOEING COMPANY

AP AP

**REV LTR** 1810 - FHO ROTOR TORSION BEND STA 242 84 24300LB 60=4.4EN FWB O FLT 140 LEVEL FLT
O FLT 141 LEVEL FLT
A FLT 142 LEVEL FLT r #2 42 BEND 150 9 140. BD. 100-IBO -TRUE RERSPEED IN MNOTS PTAS N-L B 40000 STR242 20000 BEND 140. 100-IGO. TRUE PIRSPEED IN MOTS PTAS -8 FORM 52300 (10/71)

D210-11168-3

NUMBER | VOLUME 3



NUMBER ! VOLUME 3

THE BOEING COMPANY

**REV LTR** 1810 - FAO KOTOR TORSION BENO STA 242 CH-243000LB CO-4.4 FHD 264RPH FULLUPS POWER ON & OFF D LONG PULLUP PHR ON 2000FT
O DP PULLUP PHR ON 2000FT
LONG PULLUP PHR ON >6000FT
CP PULLUP PHR ON>5000FT
X LONG PULLUP PHR OFF >6000FT
COMP PULLUP PHR OFF >6000FT
COMP PULLUP PHR OFF 2000FT
X CP PULLUP PHR OFF 2000FT 200 Bb. 100. TRUE RIRSPEED IN KNOTS TRUE AIRSPEED IN KNOTS PTAS FORM 52300 (10/71)

THE BOEING COMPANY

AD

w b

FUD ROTOR TORSION BEND STR 242 CH-24300LB CG-4.4 FND FOWER ON & OFF TURNS 264RFM O RT TURN PHR ON 2000FT ◆ LT TURN PHR ON >6000FT

+ RT TURN PHR ON >6000FT

+ RT TURN PHR OFF >6000FT

▼ RT TURN PHR OFF >6000FT

▼ RT TURN PHR OFF >6000FT

X UT TURN PHR OFF >6000FT 260 N H2 BEND STR 15000. 5000 5000 80. 100. 120. TRUE HIRSPEED IN KNOTS 160. TRUE AIRSPEED IN MOTS FTAS FORM 52300 (10/71) -18

-22

NUMBER THE BOEING COMPANY REV LTR 1810 - FWO ROTOR TORSION BEND STA 242 CH=24900LB CO=4.4IN FHD FOWER ON CONTROL REVERSALS SHLS

O LONG CONT REV 2000FT

O LONG CONT REV 2000FT

A DIR CONT REV 2000FT

+ LAT CONT REV >6000FT

X LONG CONT REV >6000FT

O DIR CONT REV >6000FT 26000. H2 SH RTR TOR 9 **8** 8 8 - 0 AD. Ida. 140. LEG. 80. 120. PTAS TRUE AIRSPEED IN KNOTS STR242 20000. BEND. -0 -20000. 4181080Y Ida. PTAS TRUE RIRSPEED IN MOTS

16 10

4

FORM 52300 (10/71)

D210-11168-3 VOLUME 3

NUMBER THE BUEING COMPANY **REV LTR** 1810 - FWO ROTOR TORSION BENO STA 242 GH=24300LB CO=4.4IN FHD 264RPH FLARE TO HOVER O FLARE TO HOVER 200 BEND 160 8 -O 0 四日日 • TEO. 100. 140. TRUE AIRSPEED IN MNOTS PTAS 8TR242 20000 4.181050x 100. 120. 140. 180. TRUE AIRSPEED IN MNOTS PTAS

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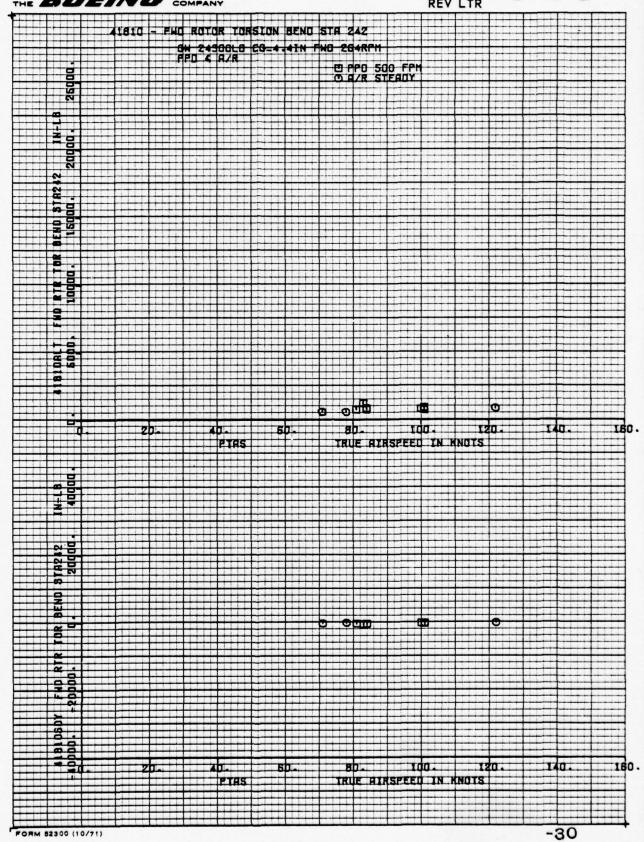
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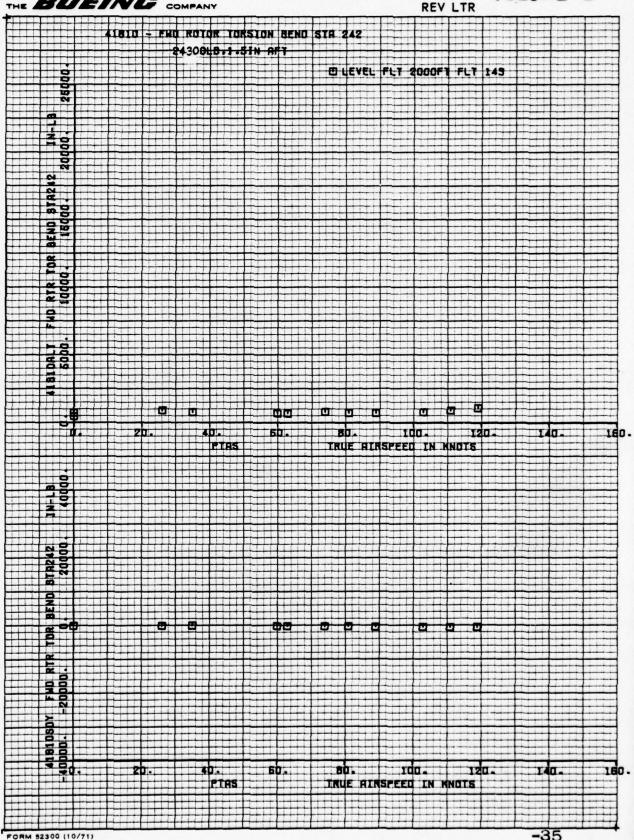
FORM 52300 (10/71)

D210-11168-3 NUMBER VOLUME 3

THE BOEING COMPANY

M. Dr





PREPARED BY: J. Bendo

THE BOEING COMPANY DATE:

8/28/78

NUMBER D210-11168-3 REV LTR Volume 3

MODEL NO.

	_						
4.7	Forward	Blade	Absolute	Top	L.E.	Station	73.

D210-11168-3 VOLUME 3

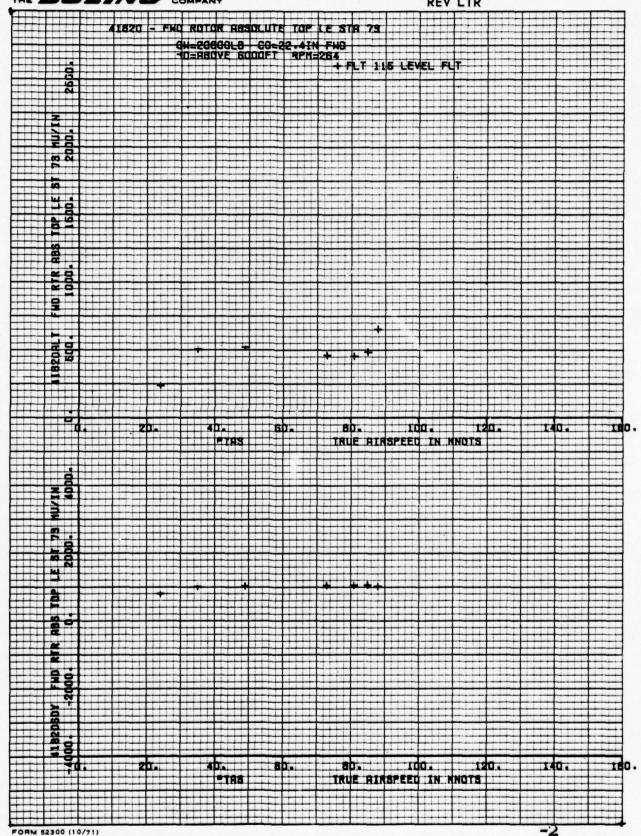
NUMBER REV LTR

THE BUEING COMPANY FNO ROTOR RESOLUTE TOP LE STR 73

GM-20000LB C0-22--1N FNO
H0-2000FT RPH=264 0 11 114 LVU 117 1 11 114 LVU 117 1 11 118 LVU 117 1 118 LVU 117 +0 0 0 40 0 9 60. 10g. 12g. FTRS TRUE RIRSPEED IN MNOTS TRUE AIRSPEED IN MOTE FIRS FORM 52300 (10/71)

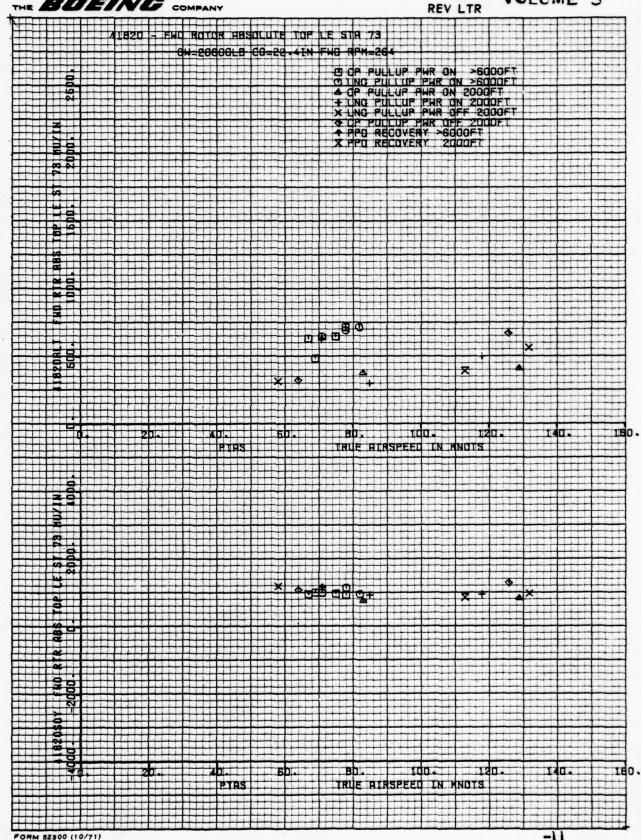
THE BOEING COMPANY

NUMBER REV LTR



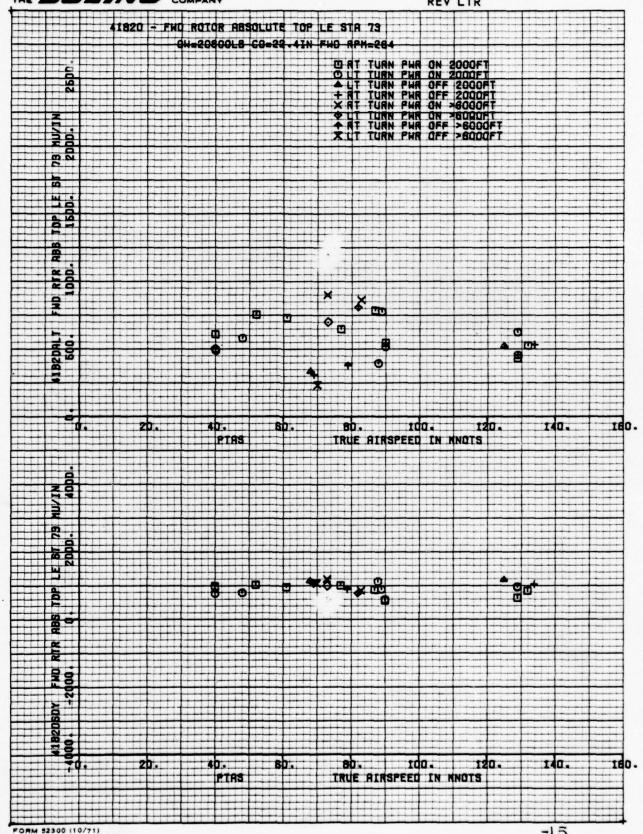
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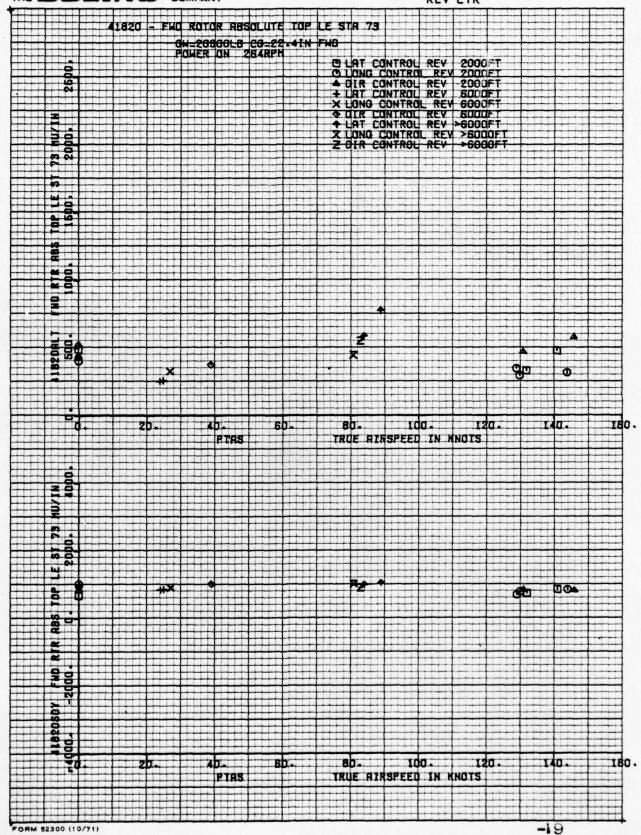
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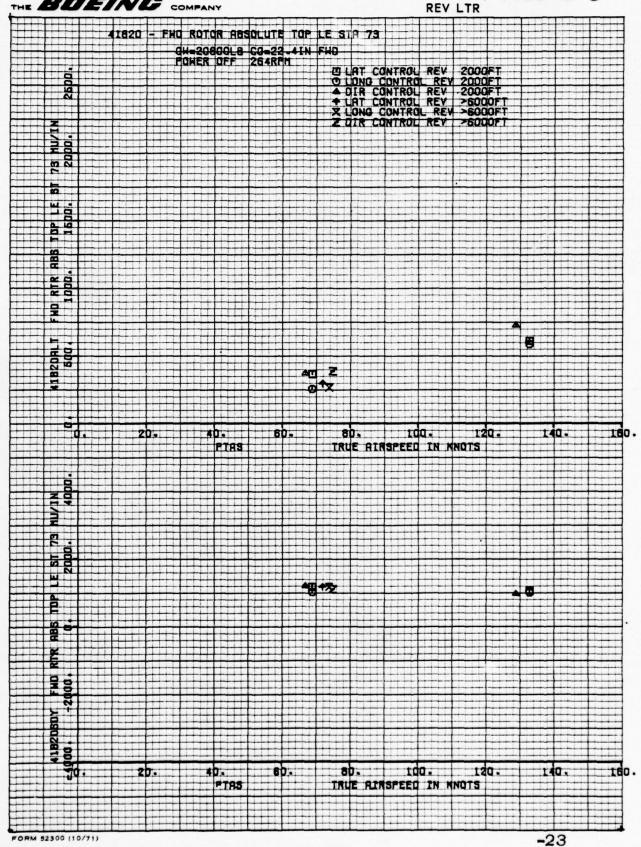
NUMBER REV LTR



THE BOEING COMPANY

NUMBER VOLUME 3 **REV LTR** 





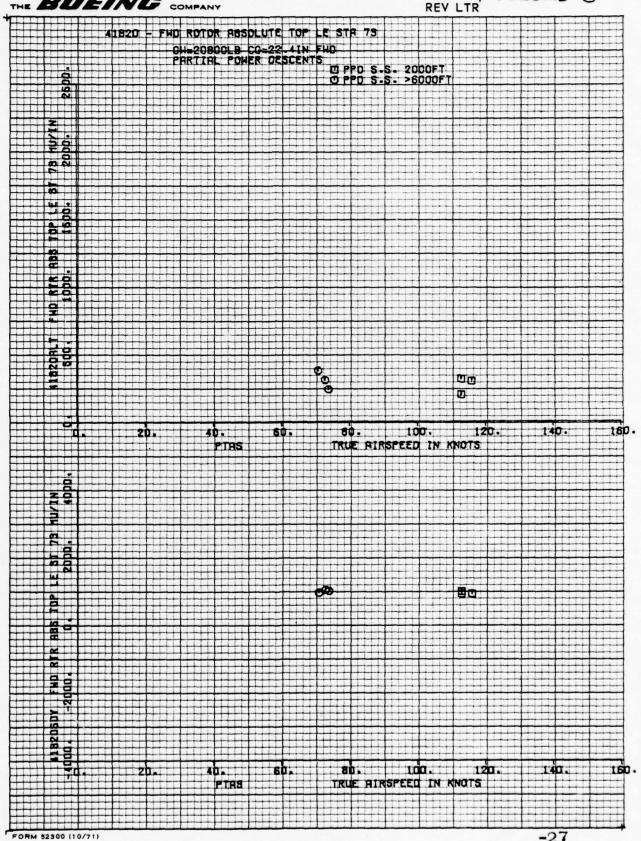
NUMBER

THE BOEING COMPANY

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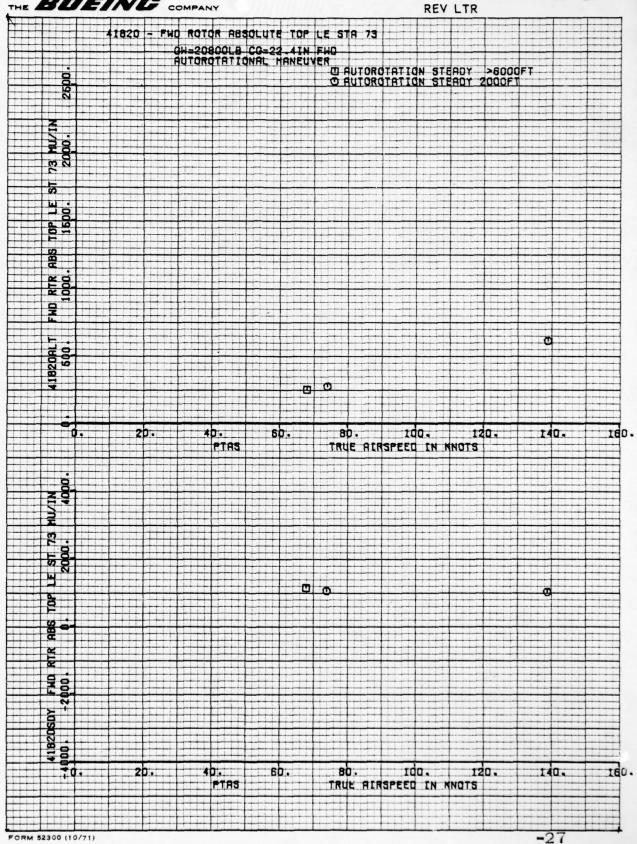
REV LTR 41820 - FWO ROTOR ABSOLUTE TOP LE STA 73 GH-20000LB CO-22.4IN FHD 264RPM E FLARE PUR ON 73 80. 80. 80. 160. TRUE ALRSPEED IN KNOTS 80. 100-140. 180. TRUE HIRSPEED IN MNOTS PTAS FORM 52300 (10/71)



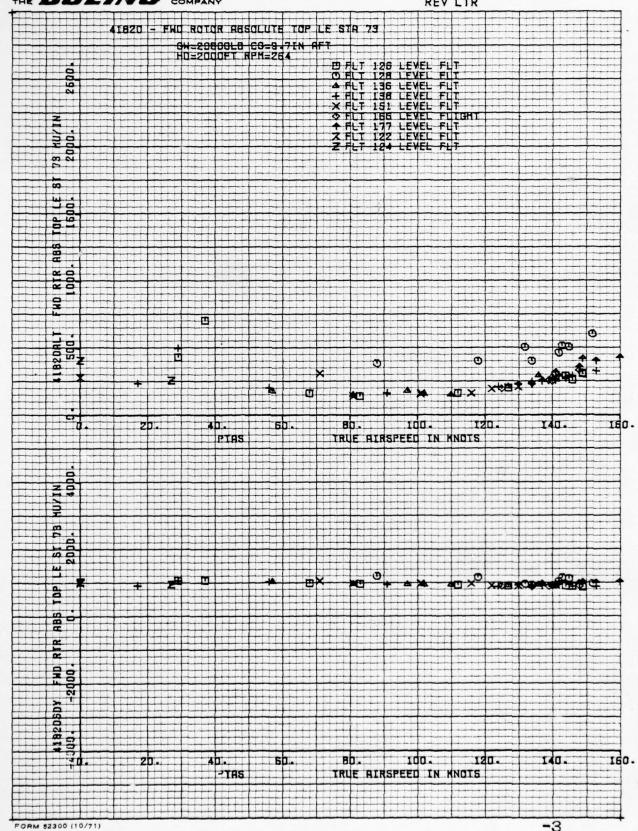




of by



NUMBER REV LTR



NUMBER **REV LTR** 

THE BOEING COMPANY 1820 - FHO ROTOR RESOLUTE TOP LE STA 73 GW=20000LB CG=3.7IN AFT HD=6000FT RPM=264 OFLT 124 LEVEL FLT 2500 # FLT 137 LEVEL FUT + FLT 139 LEVEL FUT X FLT 181 LEVEL FUT S FLT LY7 LEVEL FUT 73 2001 2 HBS ~ 0 100 KIBZOALT SQG. 80. 1da. 12a. TRUE RINSPEED IN MNOTS PTAS 2000. d I \*D. 80. TRUE HIRSPEED IN KNOTS PTHS

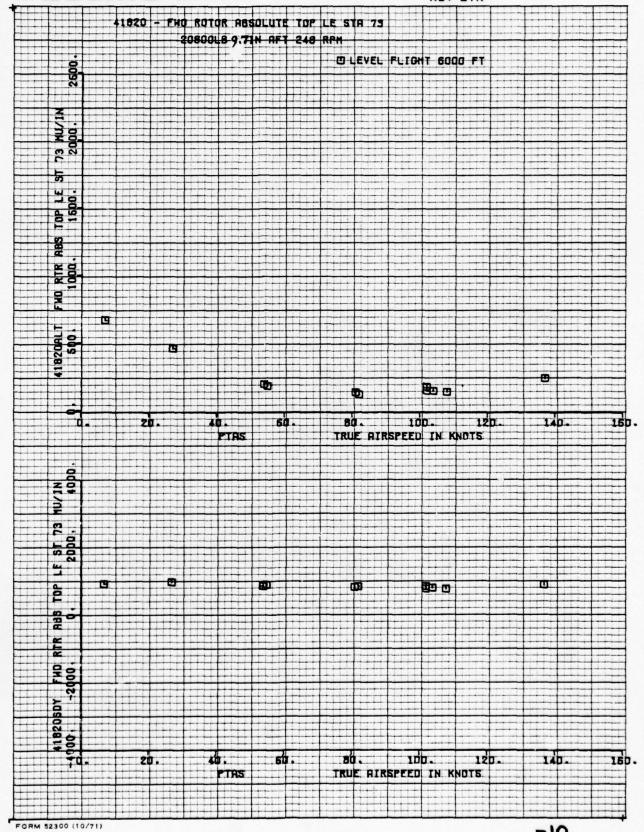
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FORM 52300 (10/71)

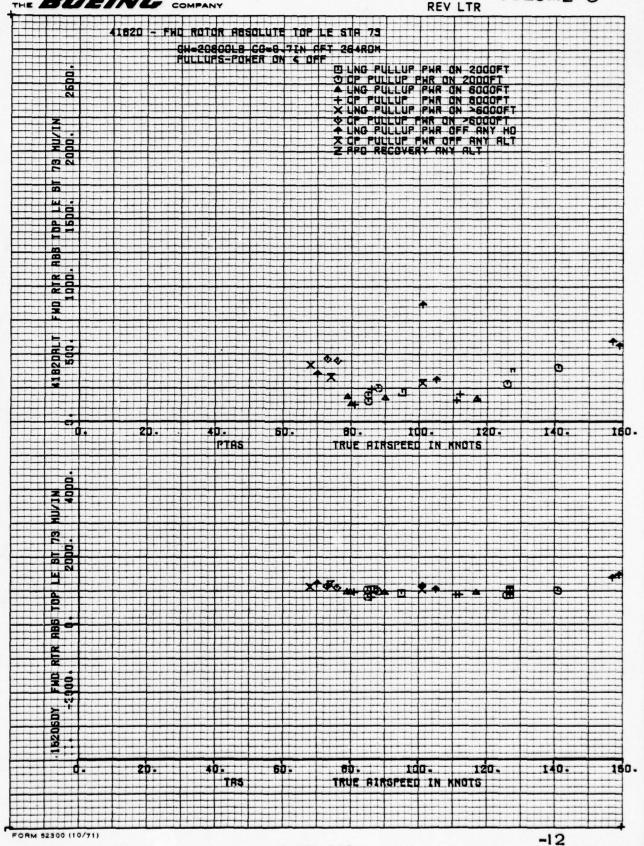
- FWO ROTOR ABSOLUTE TOP LE STA 73 6H=20800L8 HU=>6000FT CG=9.7IN ACT TO FLT 124 LEVEL FLT S CO 3 D BD. 100. 120. 160. PIAS TRUE ALASPEED IN MOUTS ST 73 œ 140. BD. 100ıza. 160. PTAS TRUE AIRSPEED IN KNOTS FORM 52300 (10/71)

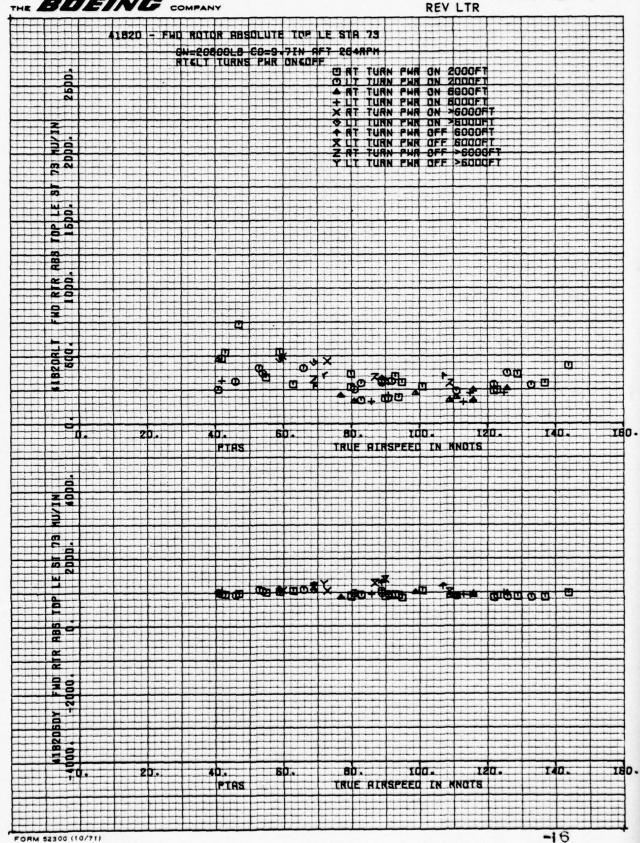
D210-11168-3 VOLUME 3

NUMBER REV LTR



D210-11168-3 NUMBER VOLUME 3





-20

THE BOEING COMPANY **REV LTR** 1820 - FHO ROTOR RESOLUTE TOP LE STA 79 GH-2080GLB CO-9.7IN AFT 264RFM CONTROL REVERSALS POWER ON R ON
BY LAT CONTROL REV 2000FT
O'LING CONTROL REV 2000FT

A DIR CONTROL REV 2000FT

+ LAT CONTROL REV 5000FT

X LNG CONTROL REV 5000FT

O'DIR CONTROL REV 5000FT

A LAT CONTROL REV 5000FT

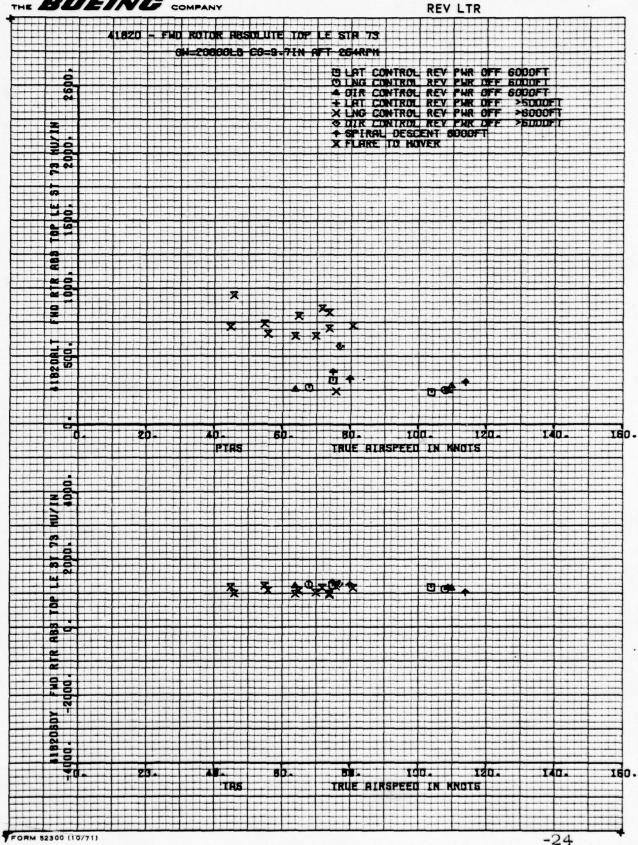
X LNG CONTROL REV >6000FT

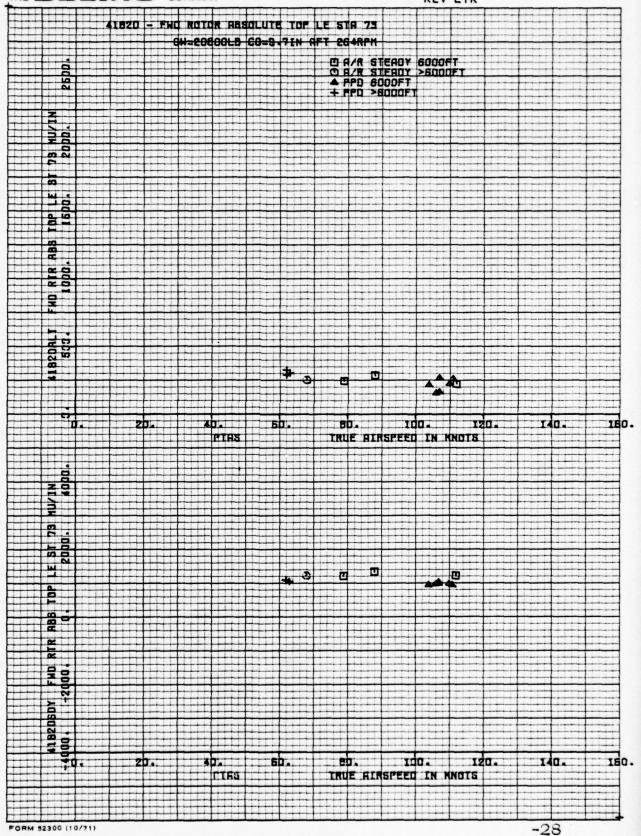
X LNG CONTROL REV >6000FT

Z DIR CONTROL REV >6000FT 73 8 ٥ ۲ × 0 20 9 1 0 × 1 00 80- 100- 120-140-160 -TRUE HIRSPEED IN MNOTS PTRS N O BUCK BIT œ 1 80. 1 1da. 140. TRUE PIRSPEED IN KNOTS PTAS

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FORM 52300 (10/71)





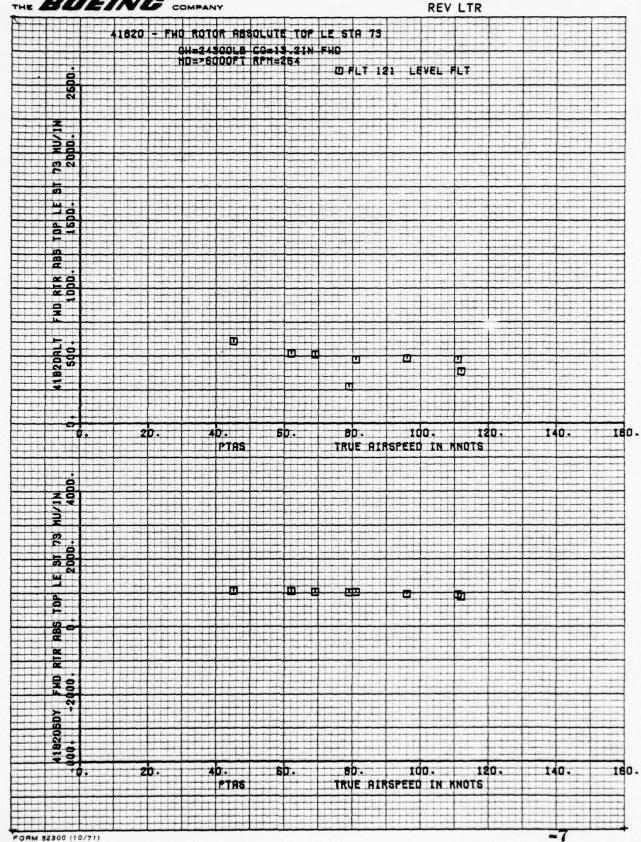
D210-11168-3 NUMBER | VOLUME 3

THE BOEING COMPANY **REV LTR** 1820 - FNO ROTOR ABSOLUTE TOP LE STA 75 GH=24500LB CO=15.2IN FHO HD=2000FT RPH=264 M FLT 117 LEVEL FLT A FLT 121 LEVEL FLT 80 ¥ å 8 000 0 0 Ab-80. 100. 120. TEO. TRUE RIRSPEED IN MNOTS PTAS 80.... 1100 160 40. FTAS TRUE HIRSPEED IN MNOTS FORM 52300 (10/71) -6

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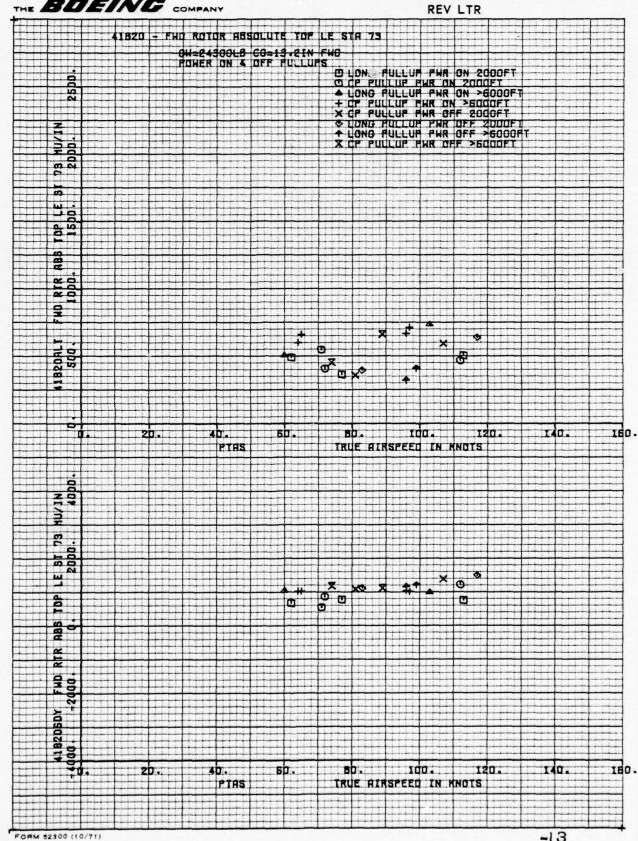
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D210-11168-3 NUMBER VOLUME 3

THE BOEING COMPANY

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THE BOEING COMPANY

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26

d B

FORM 52300 (10/71)

**REV LTR** 1820 - FWO ROTOR ABSOLUTE TOP LE STA 73 GH-24300LB CO-13.21N FHD TURNS POWER ON 40FF 264RPM 4RPH

D LT TURN PHR ON 2000FT

ORT TURN PHR ON 2000FT

ART TURN PHR ON >6000FT

+ LT TURN PHR ON >6000FT

X LT TURN PHR OFF 2000FT

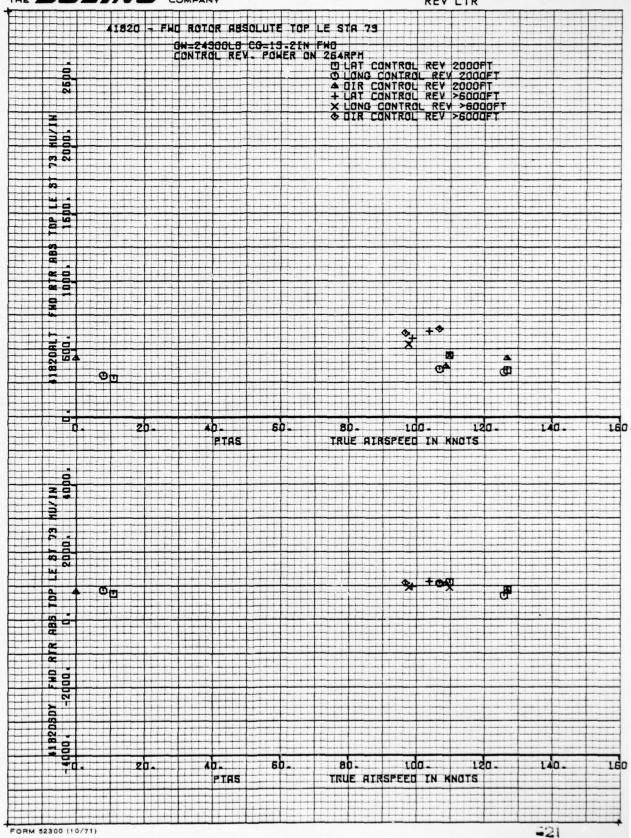
ORT TURN PHR OFF 2000FT

LT TURN PHR OFF >6000FT

X RT TURN PHR OFF >6000FT

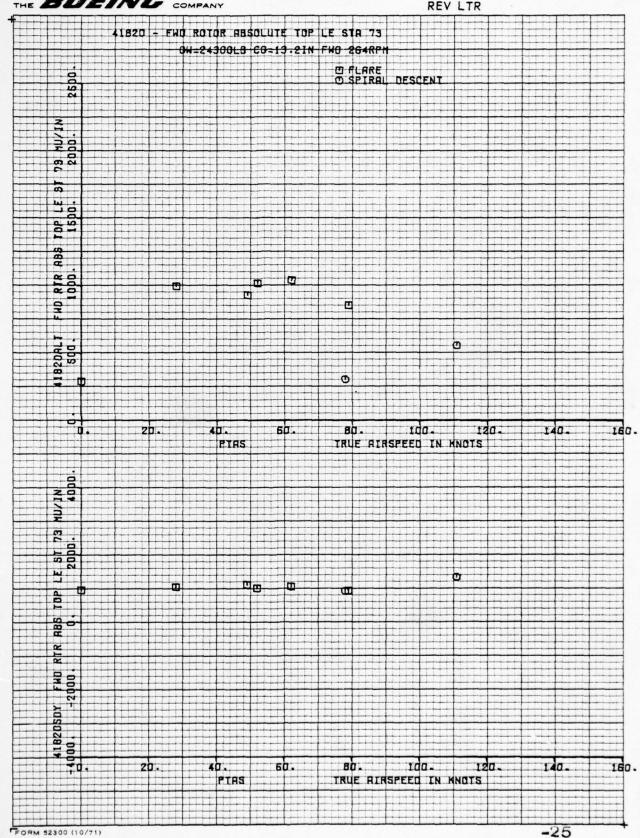
X RT TURN PHR OFF >6000FT 30 m 0 1820AL 1 590. 0 OQ 140. IGO. 80. Ido. PTAS TRUE ALRSPEED IN KNOTS ð 24 150. PTRS TRUE RIRSPEED IN KNOTS

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D210-11168-3 NUMBER VOLUME 3 REV LTR

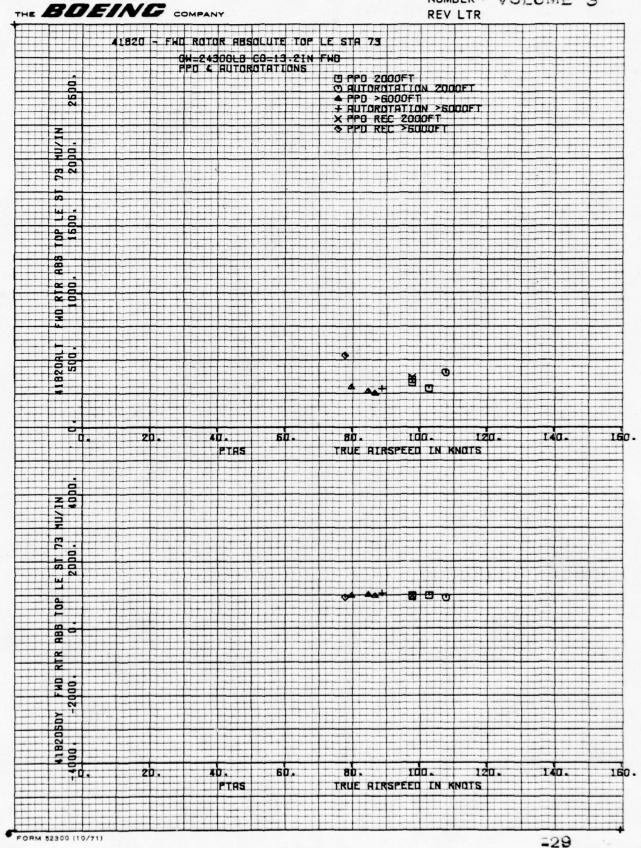
THE BOEING COMPANY



D210-11168-3

NUMBER! VOLUME 3

**REV LTR** 



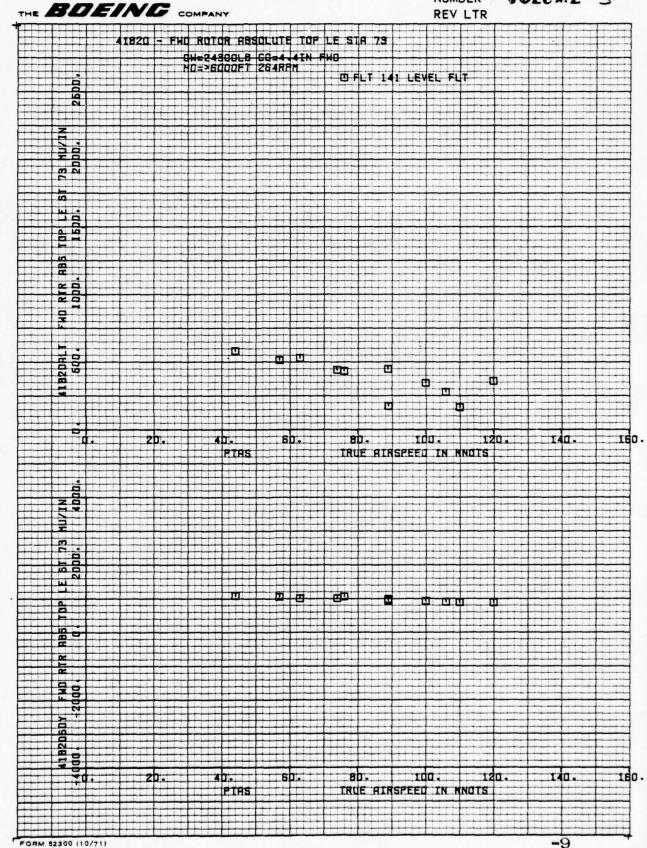
D210-11168-3

NUMBER ! VOLUME 3

THE BOEING COMPANY **REV LTR** 1820 - FHO ROTOR ABSOLUTE TOP LE STA 73 GW 24300LB CG=4.4IN FWD HD=2000FT RPH=264 2500. E FLT 140 LEVEL FLT
O FLT 141 LEVEL FLT
A FLT 142 LEVEL FLT 73 MU/JN 2000 4 100 20 E G AO AD. Ida. 140. IBO -80. TRUE AIRSPEED IN MNOTS PTAS MUZIN ADOD. 40. 140. 80. Ida. 160. PTAS TRUE ALASPEED IN MOTS FORM 52300 (10/71) -8

NUMBER - NOLUME 3

**REV LTR** 

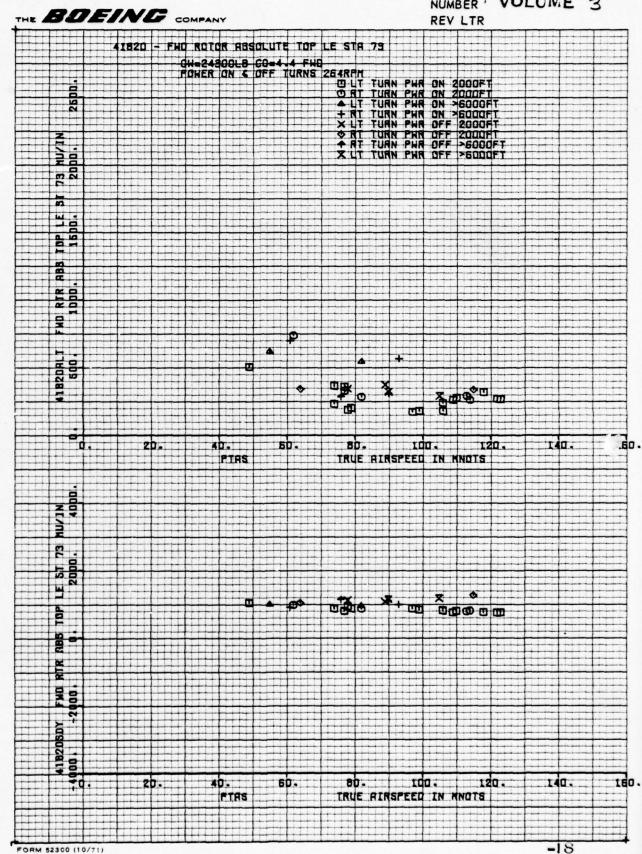


NUMBER! VOLUME 3

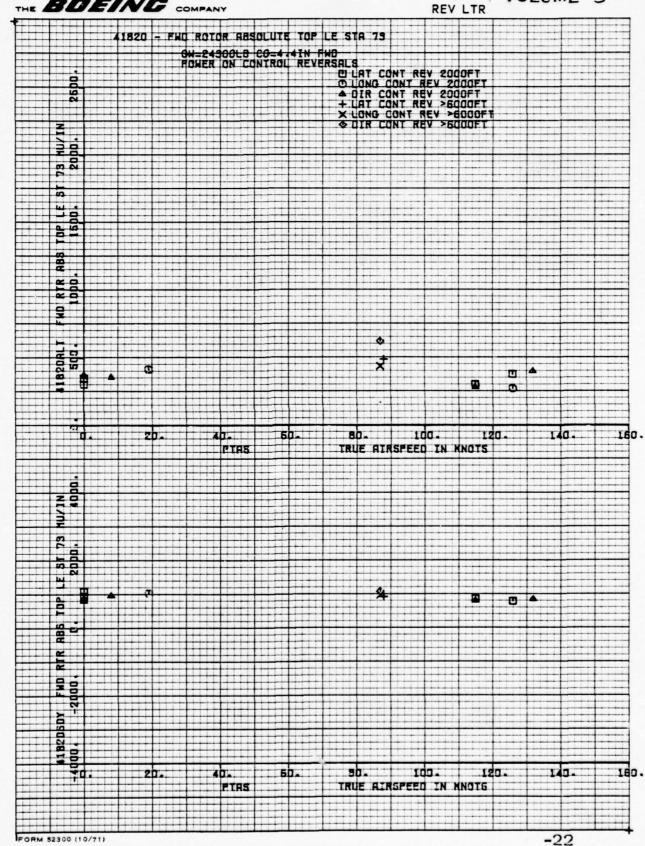
THE BOEING COMPANY

FORM 52300 (10/71)

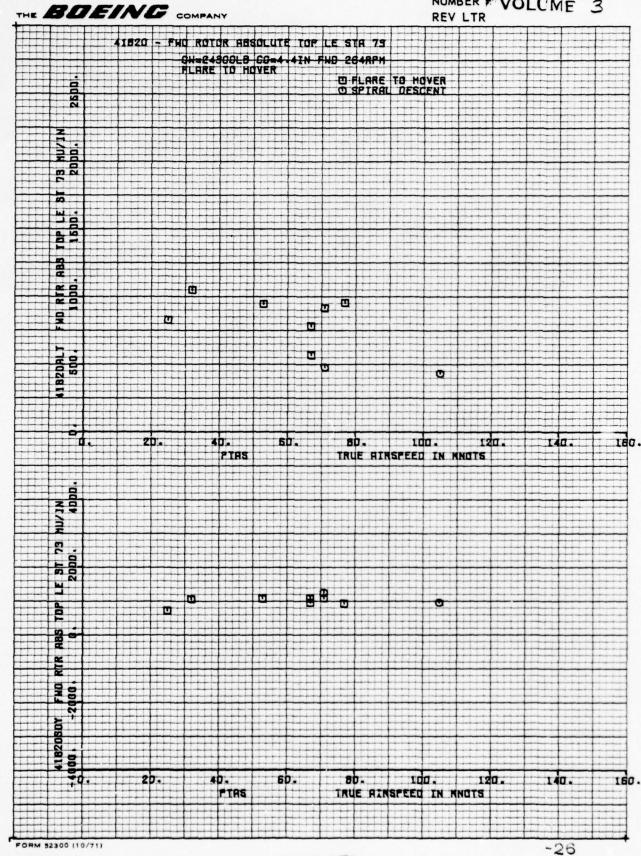
1820 - FWO ROTOR RESOLUTE TOP LE STA 73 CH=243000LB CG=4.4 FHD 264RPM Use of the part of the property of the pullup part ZDDD. 100 R G 0 100. BD. 160. PTRS TRUE RIRSPEED IN MNOTS 88 e 100. 140. 60. 160. TRUE HIRSPEED IN KNOTS PTAS



10



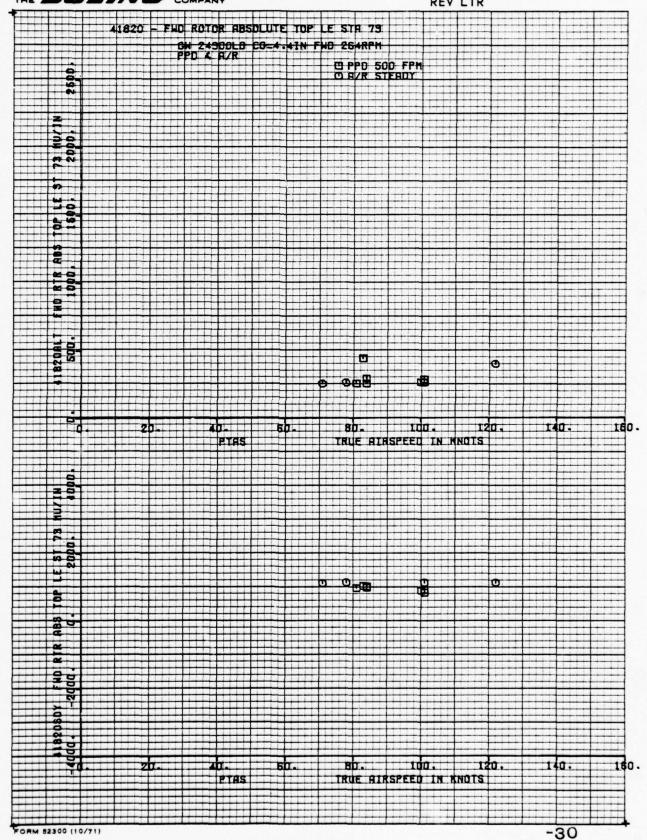
D210-11168-3
NUMBER FOULUME 3
REV LTR



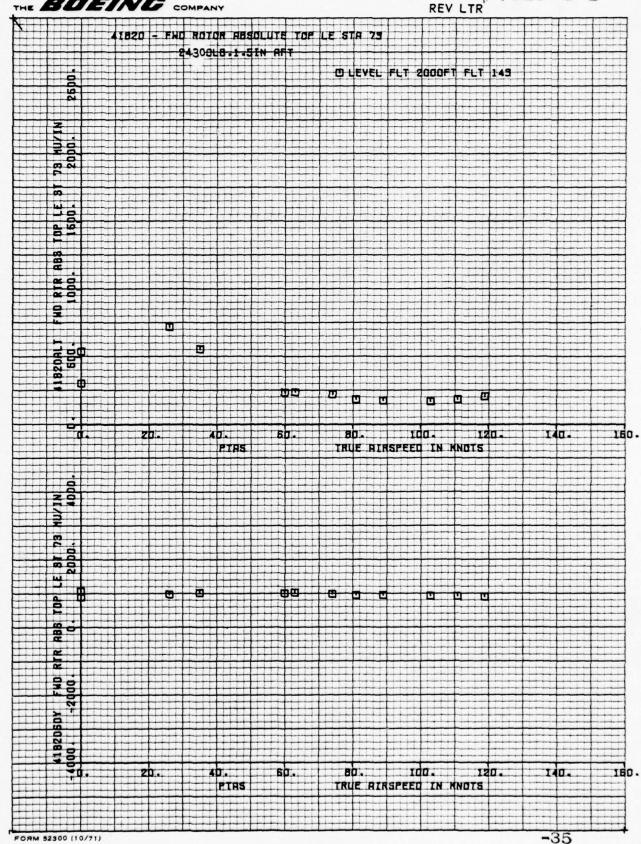
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NUMBER VOLUME 3

THE BOEING COMPANY







PREPARED BY:

J. Bendo

NUMBER D210-11168-3 REV LTR Volume 3

MODEL NO.

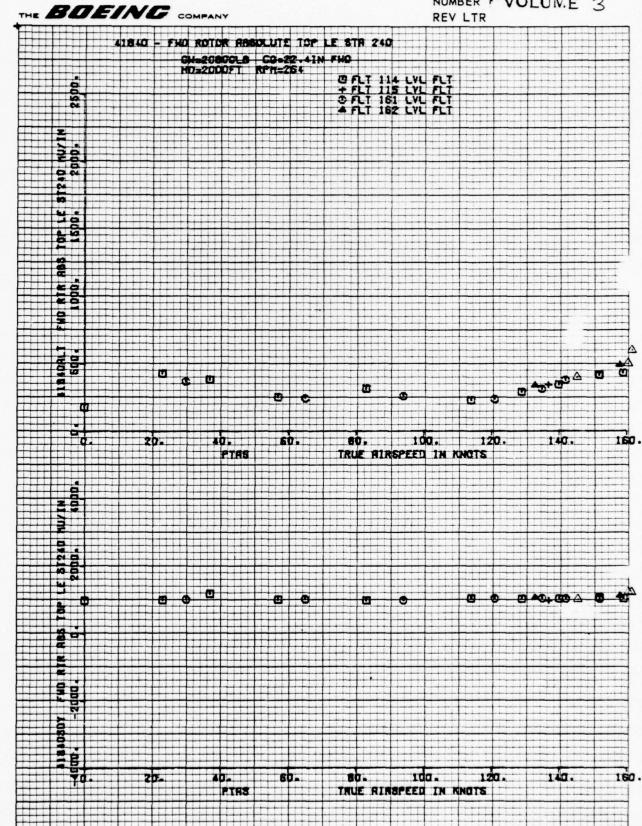
THE BOEING COMPANY

CHECKED BY: DATE:

8/28/78

4.8 Forward Blade Absolute Top L.E. Station 240.

D210-11168-3 NUMBER FVOLUME 3

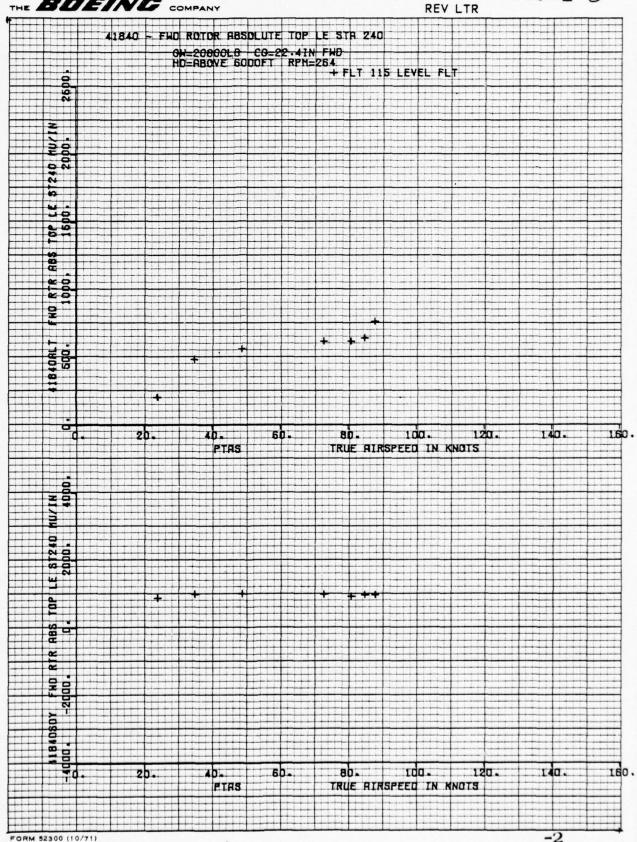


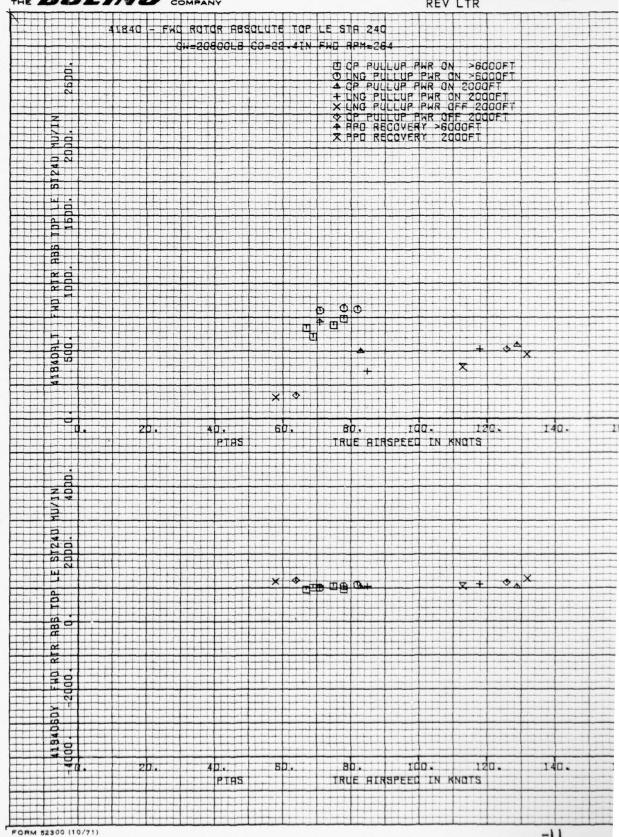
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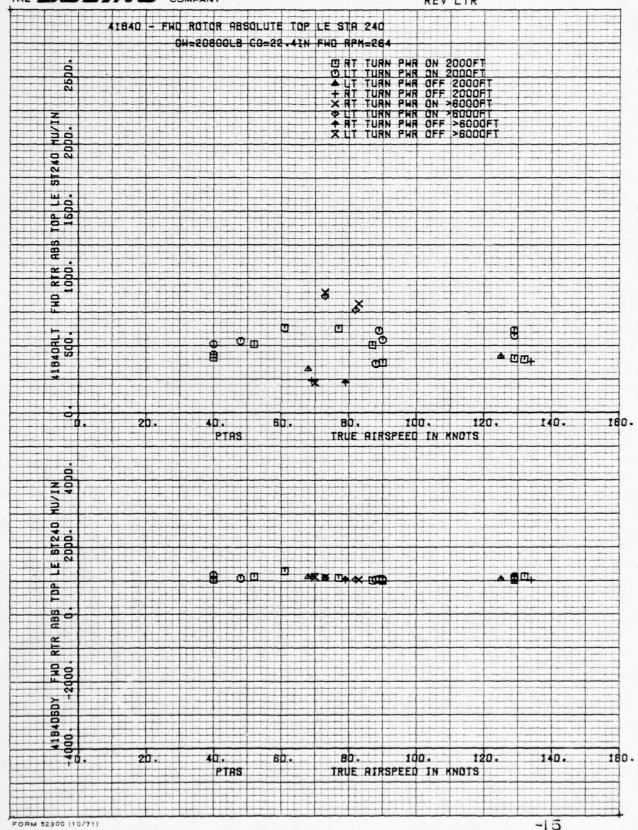
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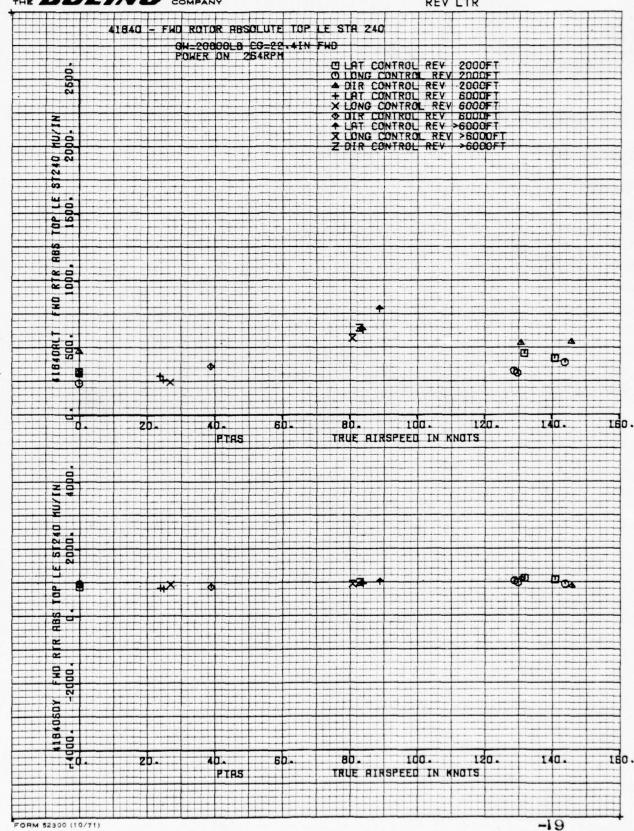
43

THE BOEING COMPANY

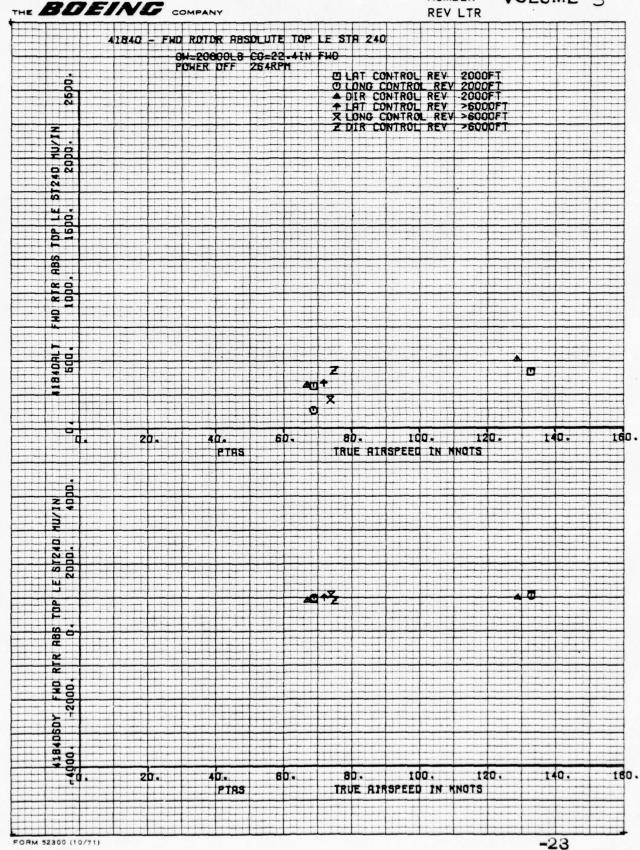








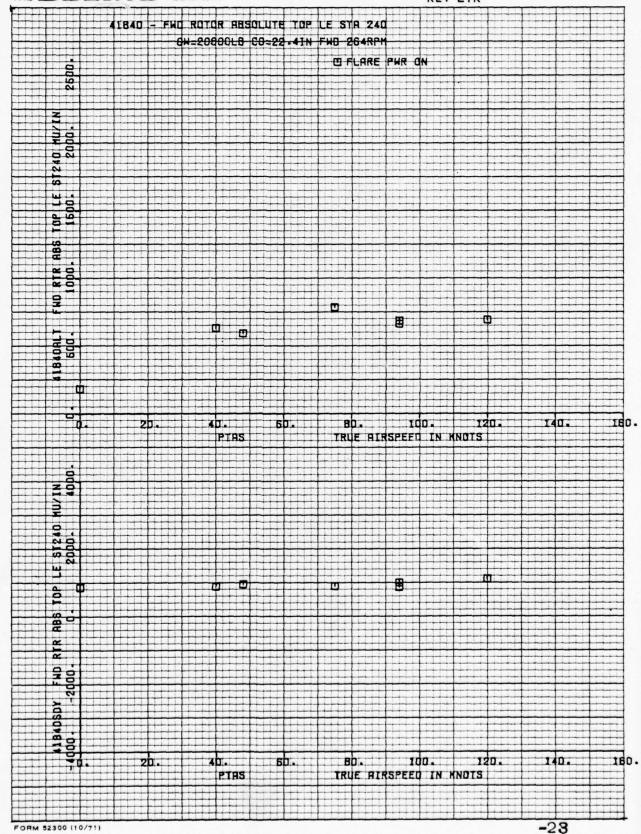
NUMBER



D210-11168-3 NUMBER VOLUME 3 REV LTR

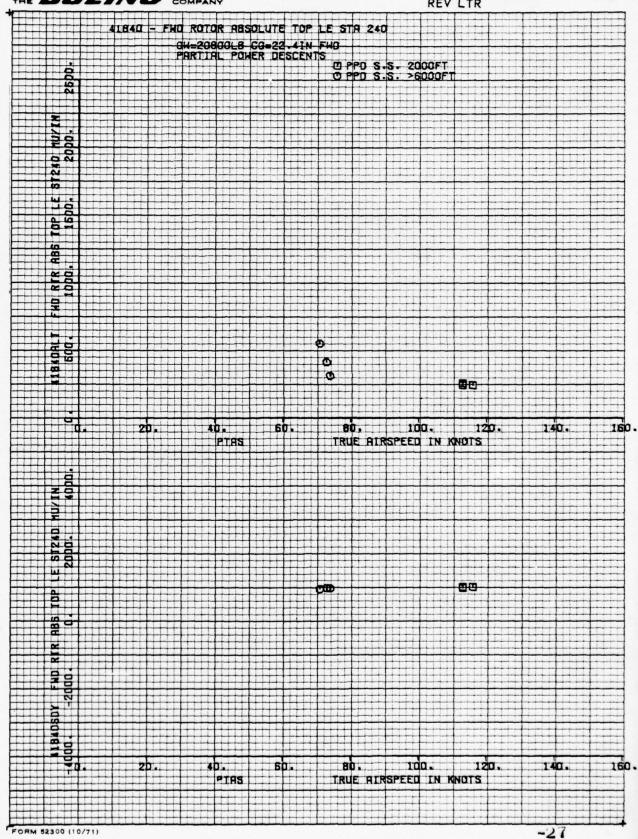
THE BOEING COMPANY

3.5



THE BOEING COMPANY

10



D210-11168-3

NUMBER VOLUME 3

THE BOEING COMPANY REV LTR CW-20000LB CO-22.4IN FWO QUITOROTHITION STEROY >6000FT O AUTOROTHITION STEROY 2000FT 41840 - FHO ROTOR ABSOLUTE TOP LE STA 240 2500. T240 MUZIN 2000. 8 28 80 3 0 0 60. 100-140. 180. PTRS TRUE AIRSPEED IN MOTS LE S1240 2000. 88° R

4.0

40.

FORM 52300 (10/71)

PTHS

80.

Ida.

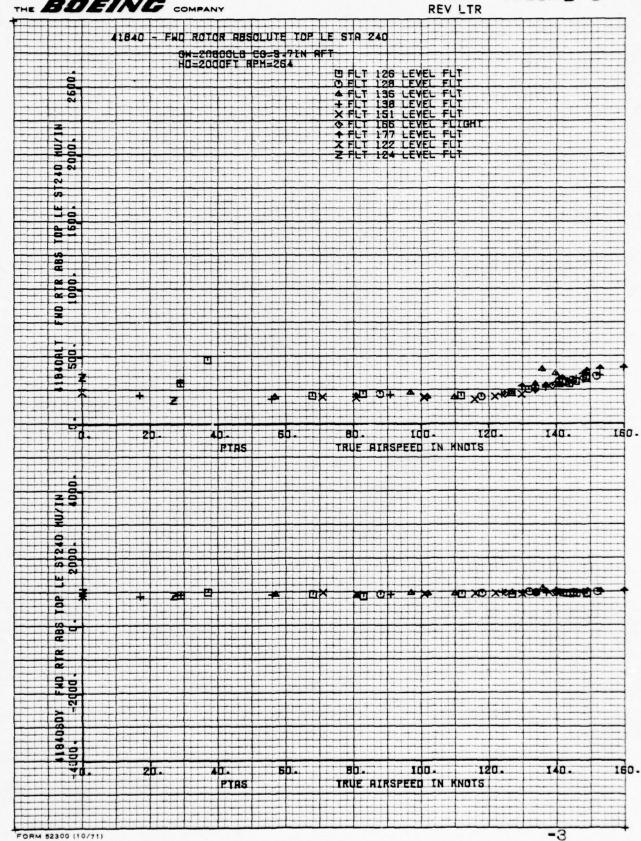
TRUE HIRSPEED IN MNOTS

140.

-27

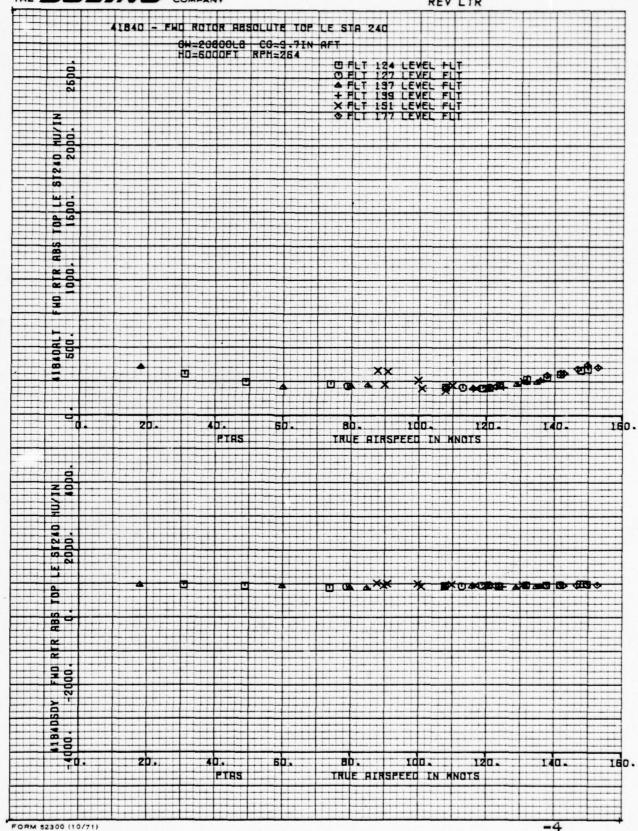
160.

d b



5P

de



D210-11168-3 NUMBER F VOLUME 3

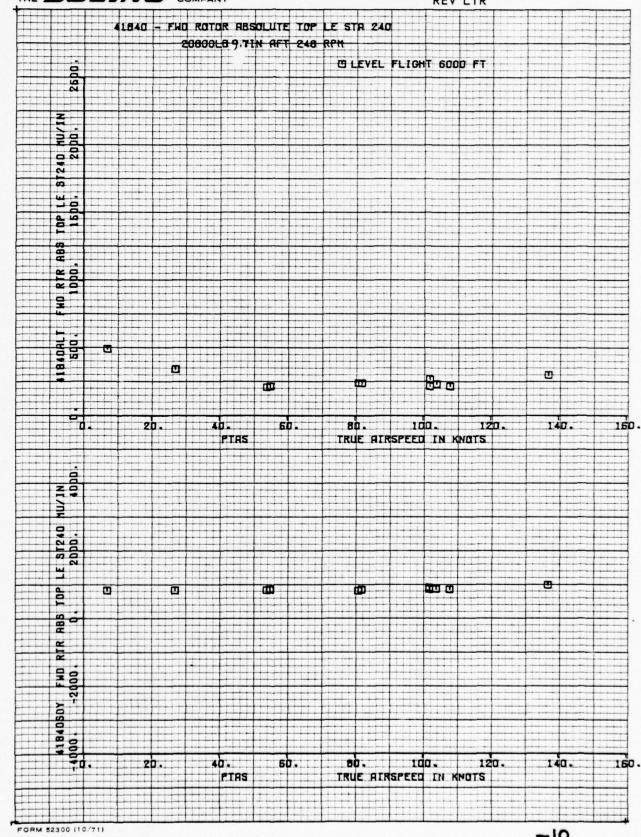
THE BOEING COMPANY REV LTR 1840 - FWO ROTOR RESOLUTE TOP LE STA 240 0H=20000LB CG=9.71N ACT E FLT 124 LEVEL FUT 260 HUZIN DO. 87240 H ۳¿ æ 0 20 2 KIBKORLT SQQ. 0 80. ida. 160. PIAS TRUE ALRSPEED IN KNOTS MU/IN 4000 LE ST240 ' 04 8 80-1da\_ 160. PTRS TRUE AIRSPEED IN KNOTS FORM 52300 (10/71) -5

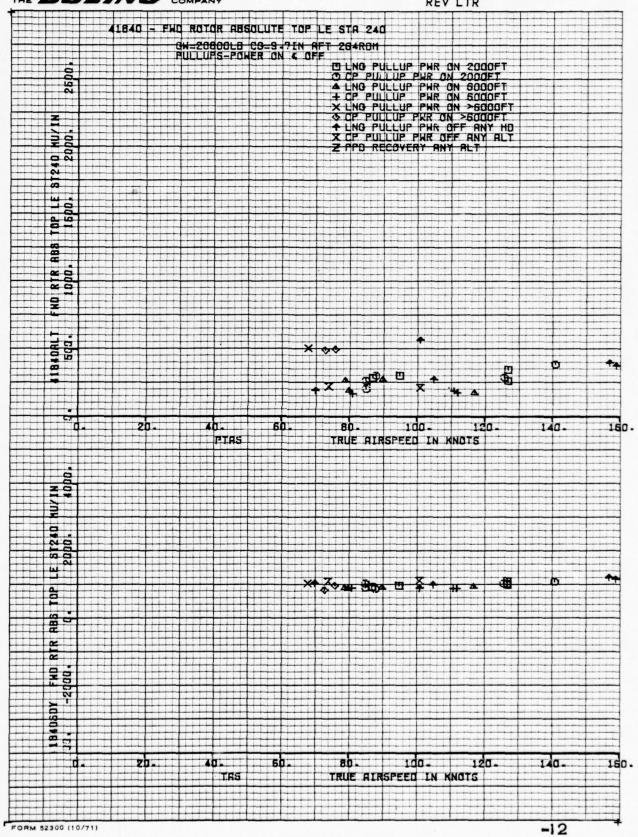
NUMBER REV LTR

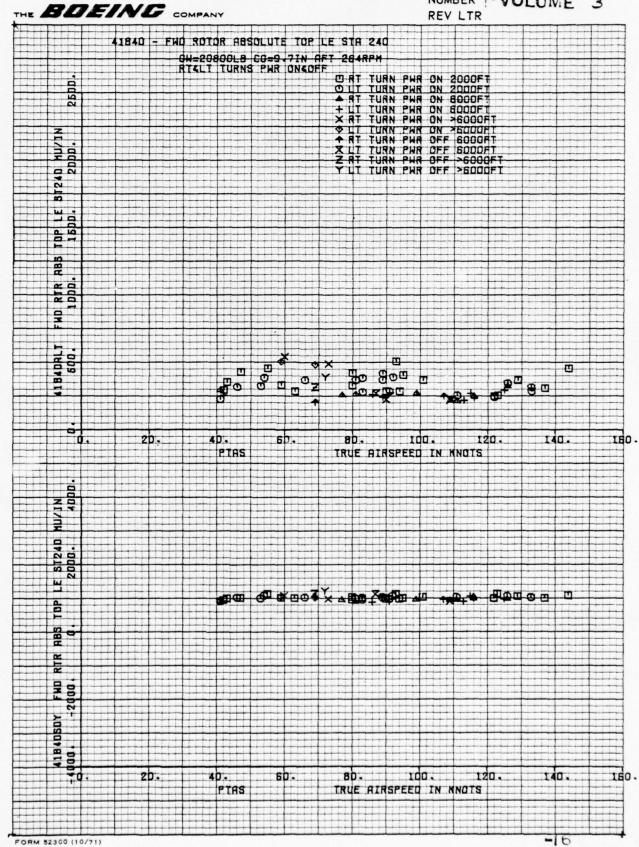
THE BOEING COMPANY

A.P.

A)







16,30

NUMBER VOLUME 3

THE BOEING COMPANY

REV LTR 41840 - FHO ROTOR ABSOLUTE TOP LE STA 240 GW=20800LB CG~8 7IN RFT 264RPM

DDNTROL REVERSALS POWER ON

O LNG CONTROL REV 2000FT

O LNG CONTROL REV 2000FT

+ LAT CONTROL REV 8000FT

X LNG CONTROL REV 6000FT

S THE CONTROL REV 5000FT ♦ DIR CONTROL REV 6000FT

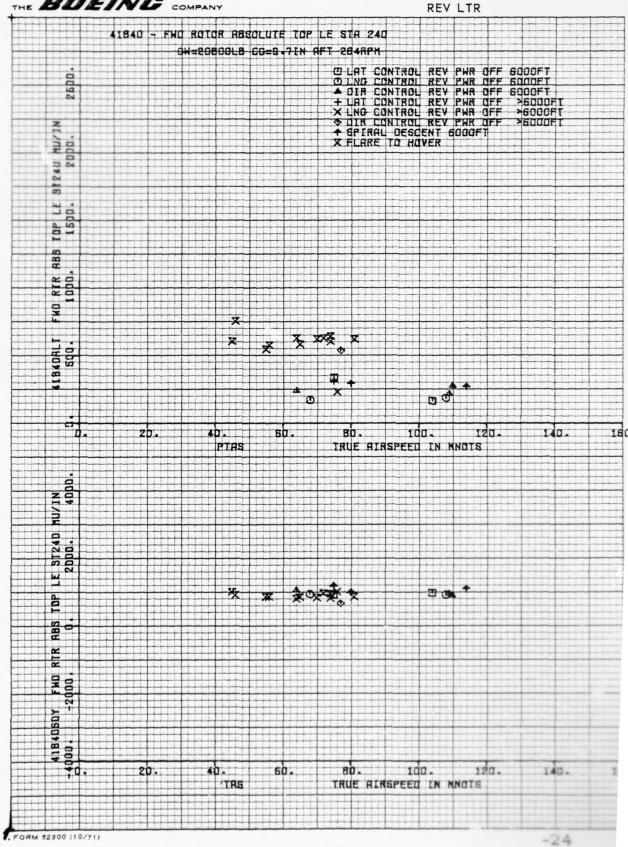
LAT CONTROL REV >6000FT

X LNG CONTROL REV >6000FT

Z DIR CONTROL REV >6000FT 80 46 160 ABB RE DOO. 40. 100- 120-160. 80. 140. TRUE AIRSPEED IN KNOTS PTAS MUZIN 4 DDD 1 DOX AG \*+ \* HBS. 20. 40 -80. Bo. 100. 140-160. 120. PTAS TRUE HIRSPEED IN KNOTS -20 FORM 52300 (10/71)



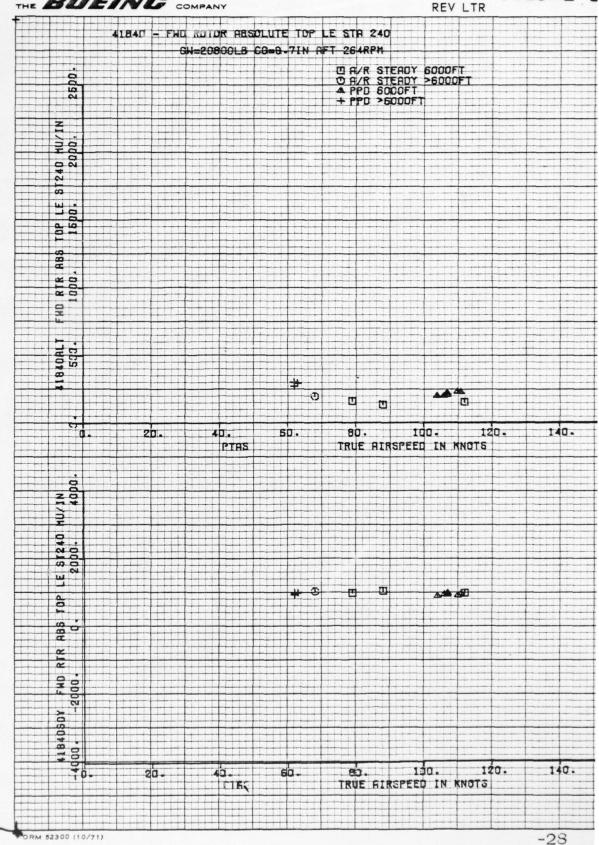
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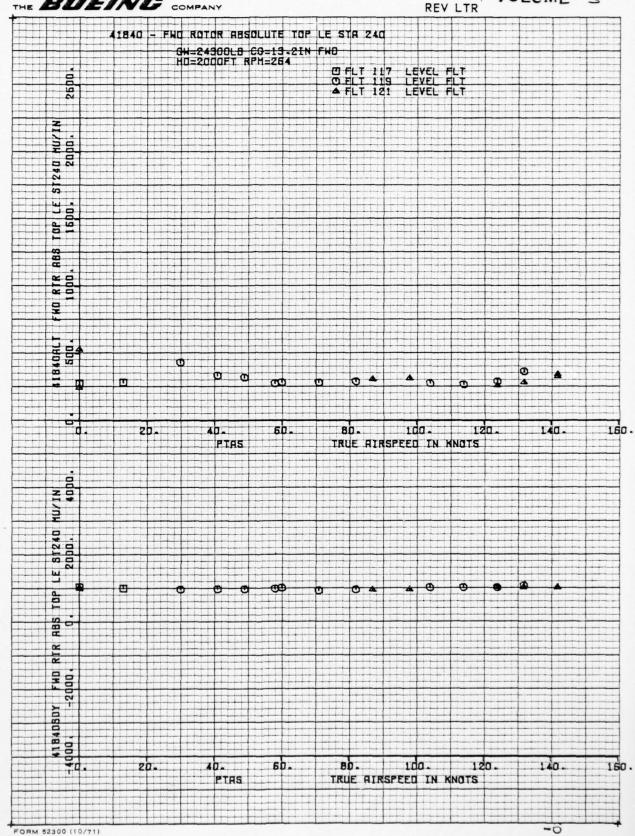


D210-11168-VOLUME 3

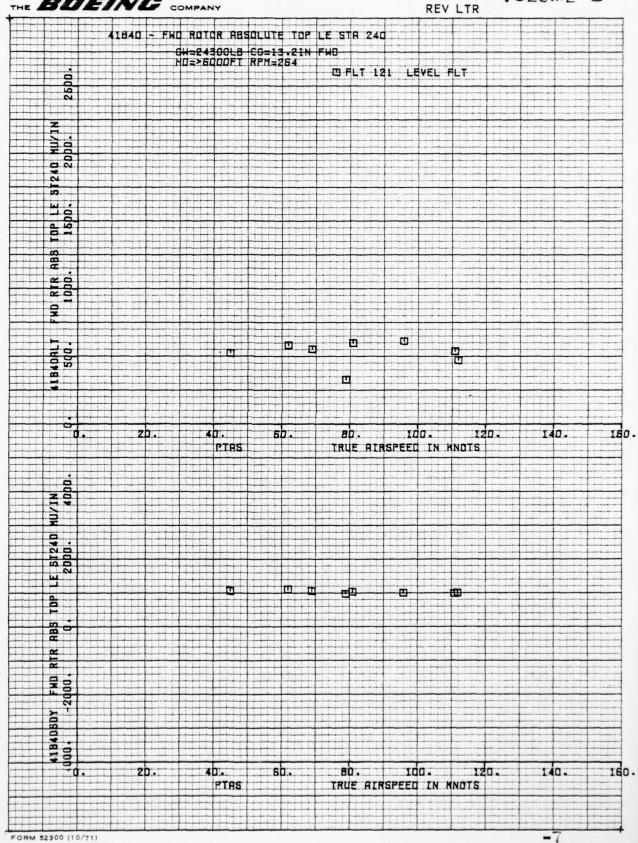
NUMBER

THE BOEING COMPANY





50



NUMBER VOLUME 3 THE BOEING COMPANY REV LTR 41840 - FWO ROTOR ABSOLUTE TOP LE STA 240 GH-24300LB CO-13.2IN FWD FOWER ON & OFF FULLUPS U LONG FULLUP PHR ON 2000FT
O CP PULLUP PHR ON 2000FT
LONG FULLUP PHR ON >6000FT
CP PULLUP PHR ON >6000FT
X CP PULLUP PHR OFF 2000FT
C LONG PULLUP PHR OFF >6000FT
LONG PULLUP PHR OFF >6000FT
X CP PULLUP PHR OFF >6000FT 2500. F240 MU/IN 20DD. 50 RIR 840ALT 500. क्षा 文团 140. 40. 80. 100-150. PTRS TRUE HIRSPEED IN MNOTS ADDO. 2000. **10** 

4 30

40

80.

Ido.

TRUE RIRSPEED IN MNOTS

140.

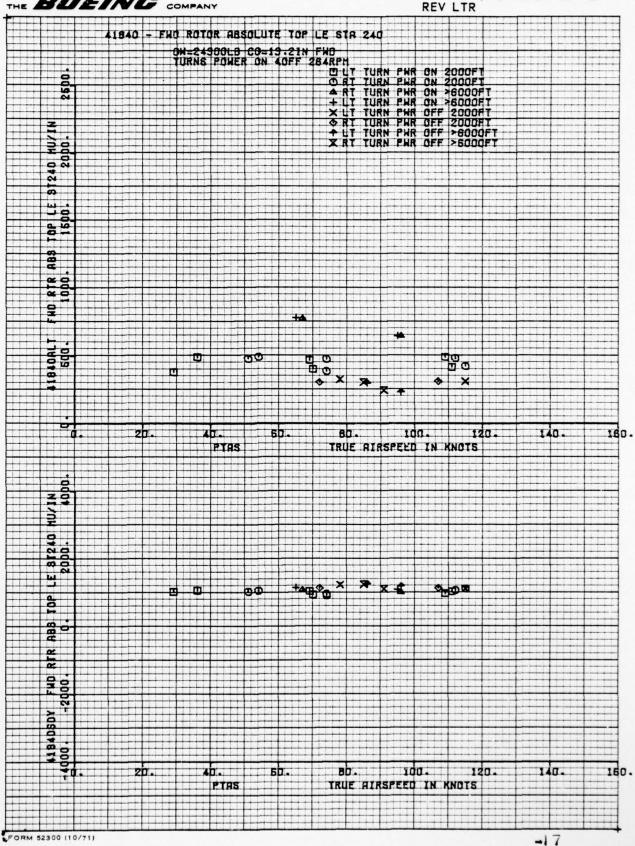
-13

ISO.

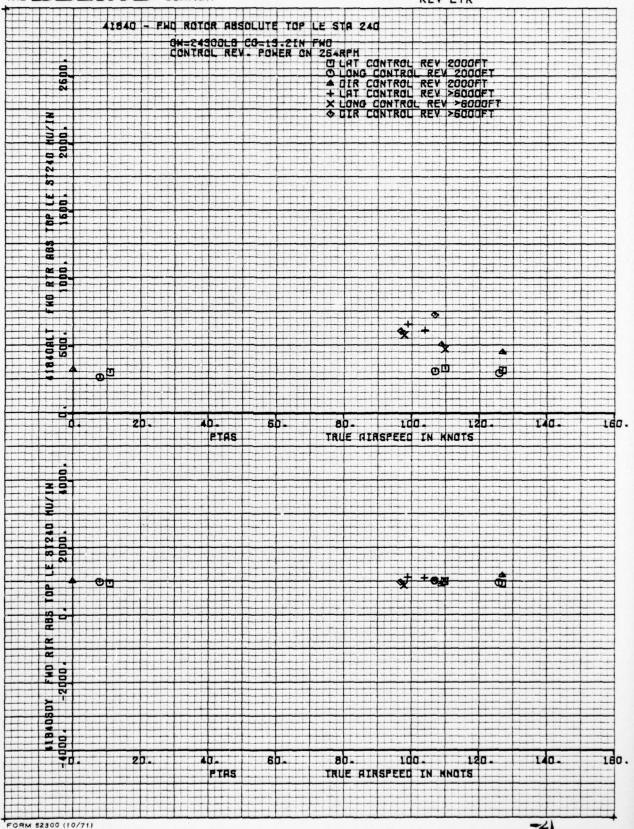
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FORM 52300 (10/71)

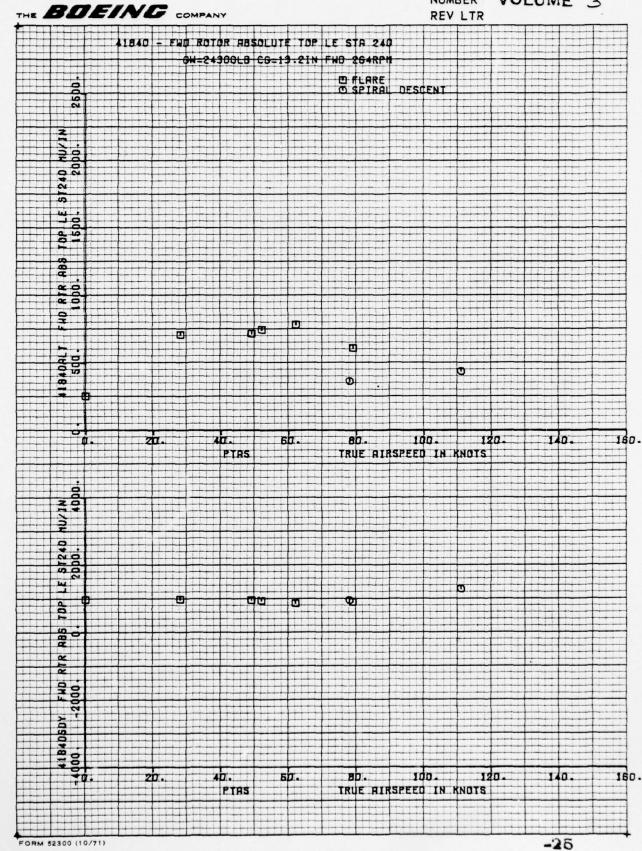
PTAS



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D210-11168-3 NUMBER VOLUME 3



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VOLUME 3 NUMBER

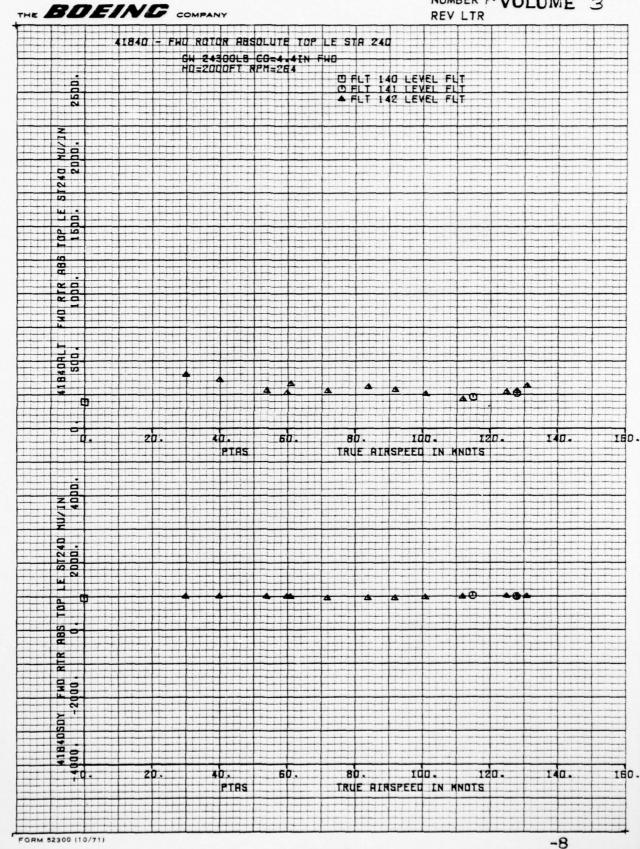
THE BOEING COMPANY

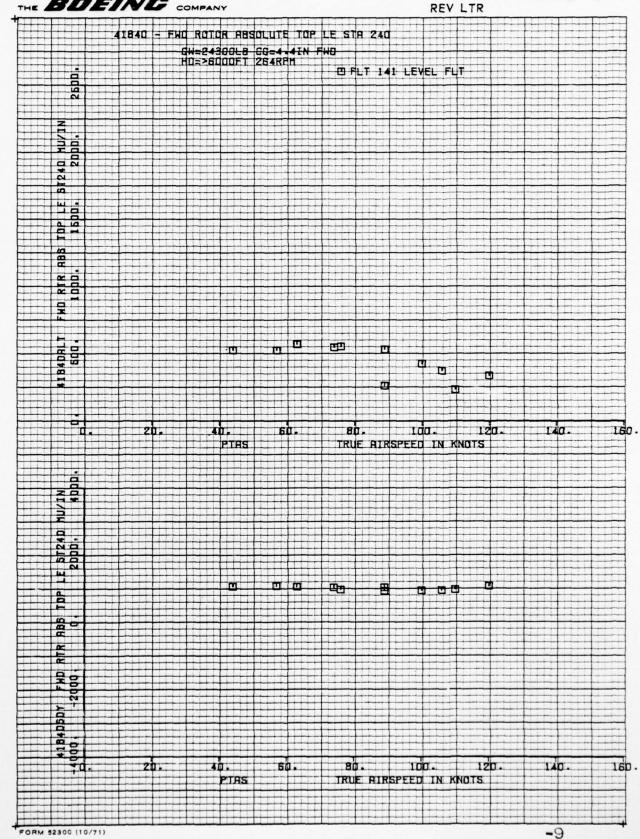
**REV LTR** 41840 - FHO ROTOR ABSOLUTE TOP LE STA 240 CH-24300LB CC-13.2IN 2500. Ø FFO 2000FT

O BUTOROTRIION 2000FT

▲ FFO >6000FT + AUTOROTATION >6000FT × APO REC 2000FT • APO REC >6000FT 20. 8 15 20 20 2 11840ALT 23 80. 100. 120. 40. 50. PTAS TRUE RIRSPEED IN KNOTS 7240 200 9 2 40. BD. 100. 120. 140. 160. TRUE AIRSPEED IN KNOTS PTAS FORM 52300 (10/71) -29

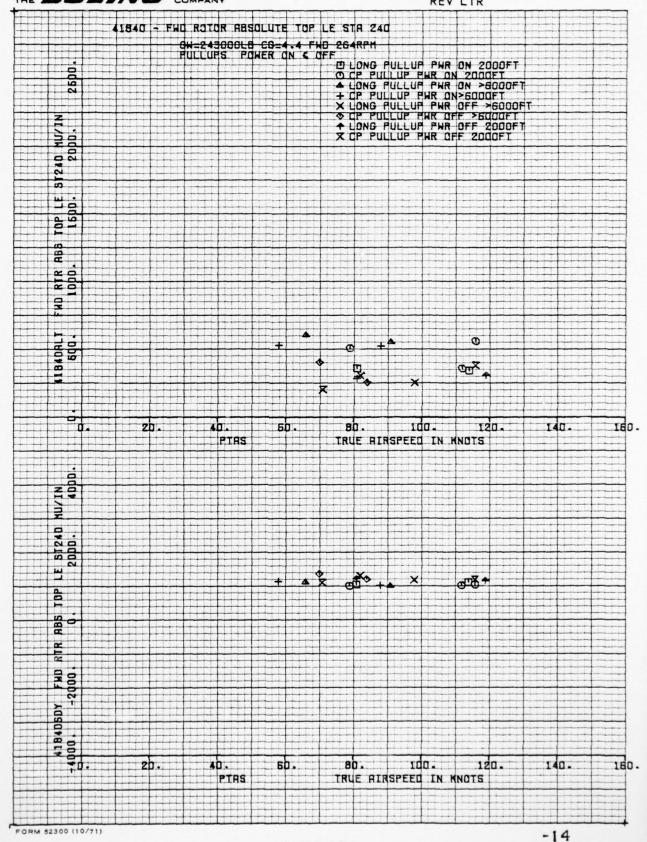
D210-11168-3
NUMBER FFVOLUME 3



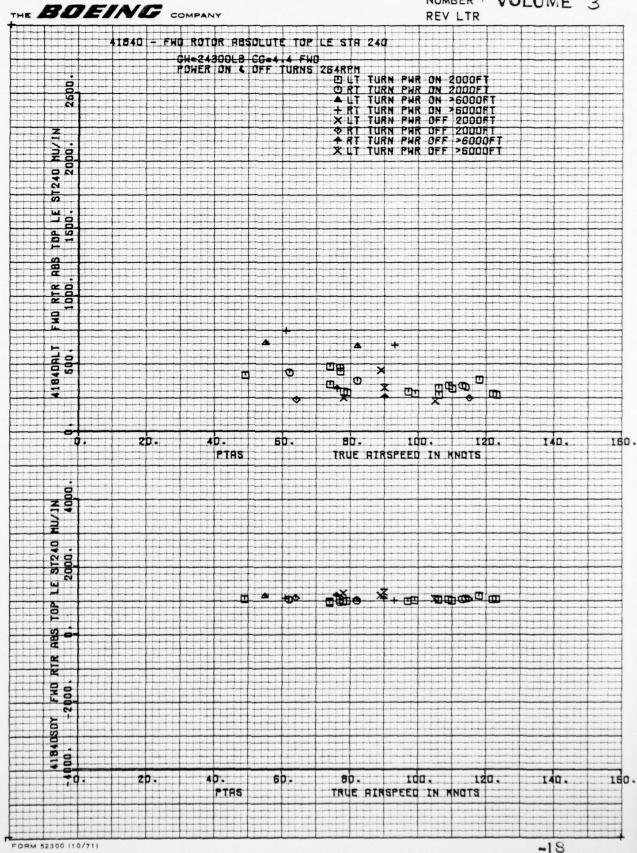


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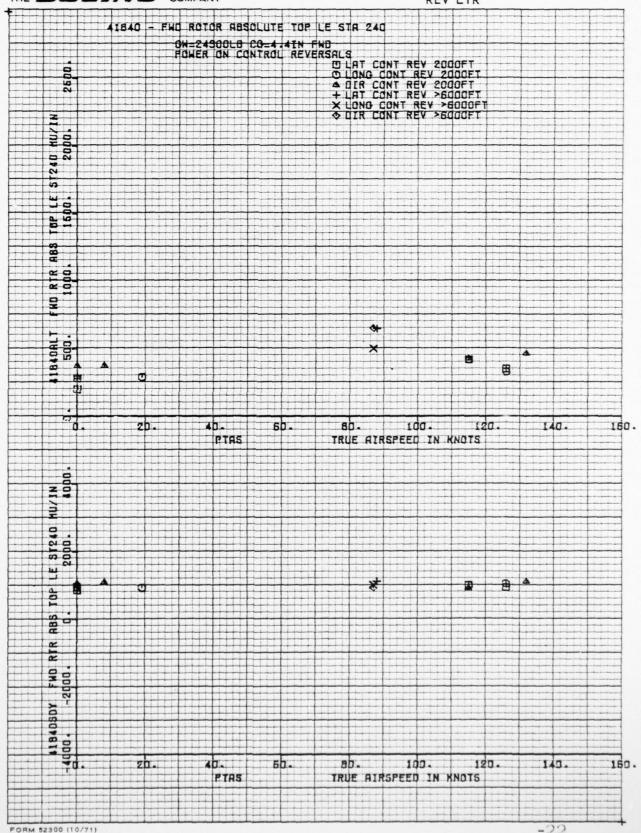
NUMBER FVOLUME 3 REV LTR



NUMBER | VOLUME 3



d.b



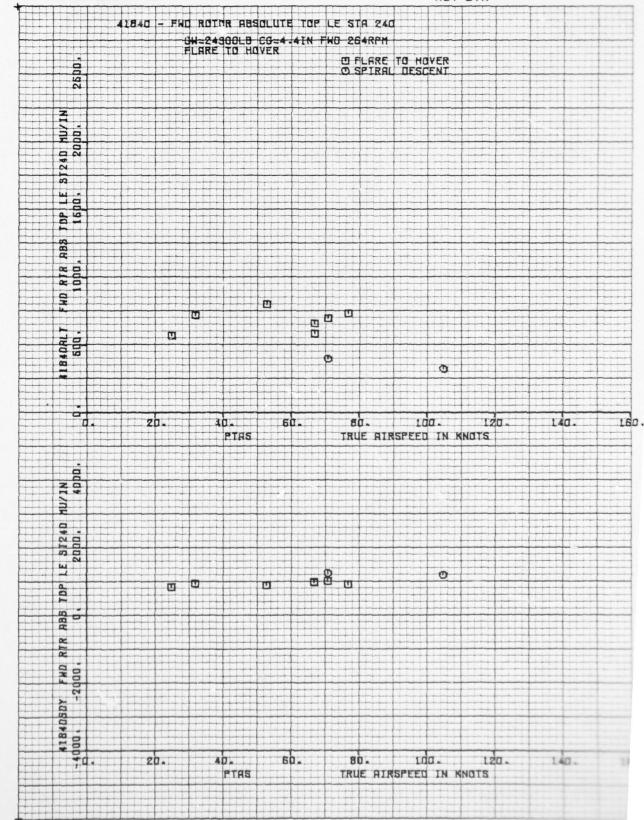
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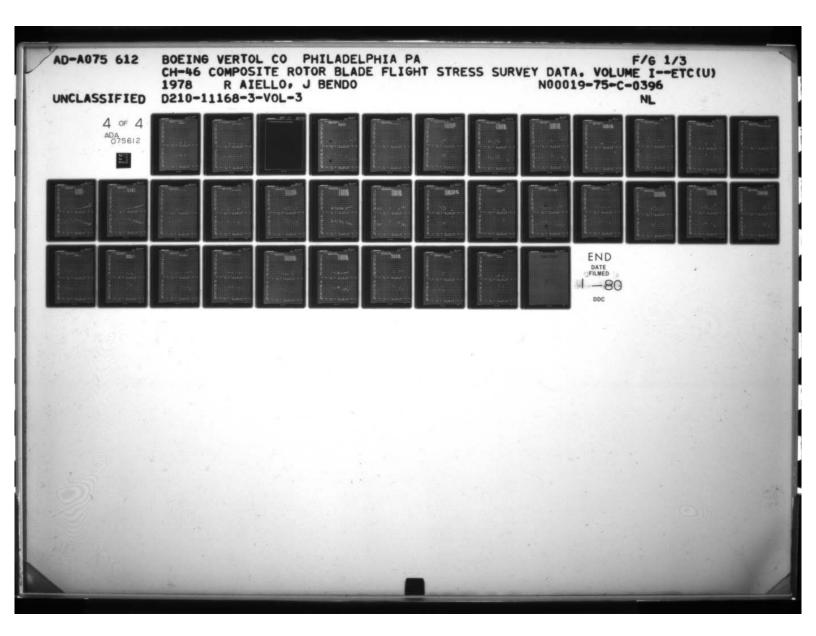
NUMBER VOLUME 3

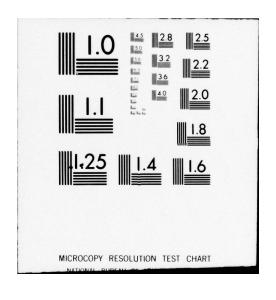
THE BOEING COMPANY

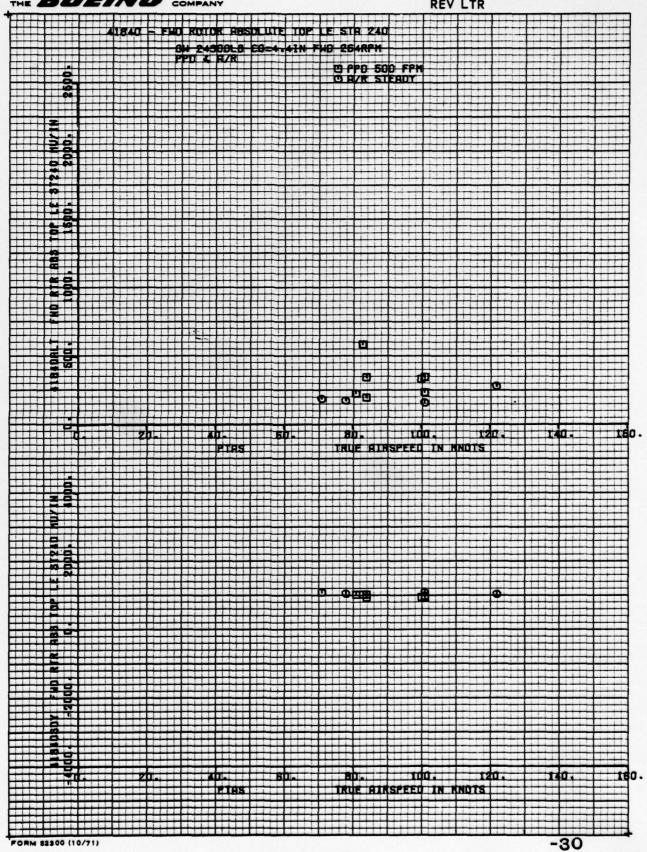
FORM 52300 (10/71)

T. D

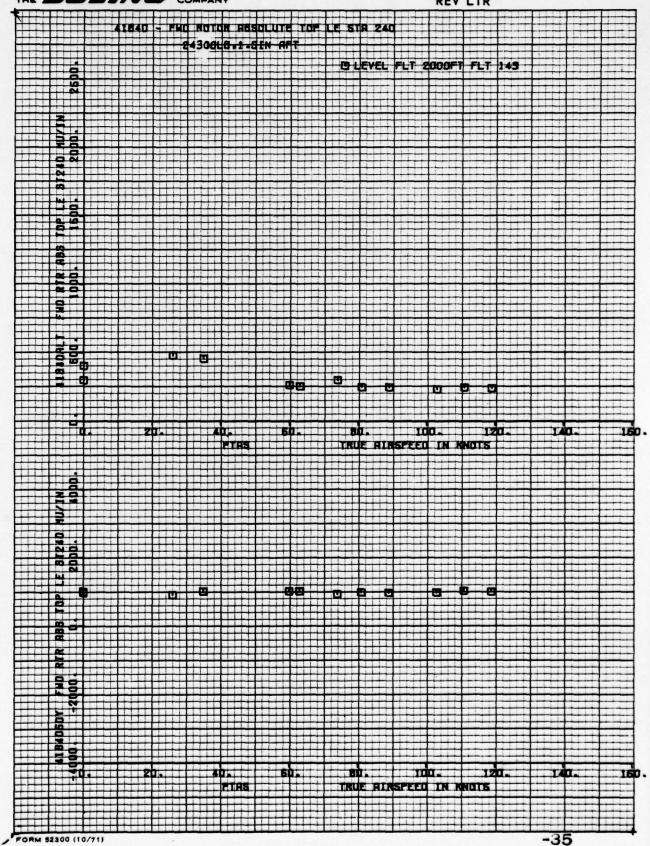








D210-11168-3 NUMBER VOLUME 3 REV LTR



PREPARED BY:

J. Bendo

NUMBER D210-11168-3 REV LTR Volume 3 MODEL NO.

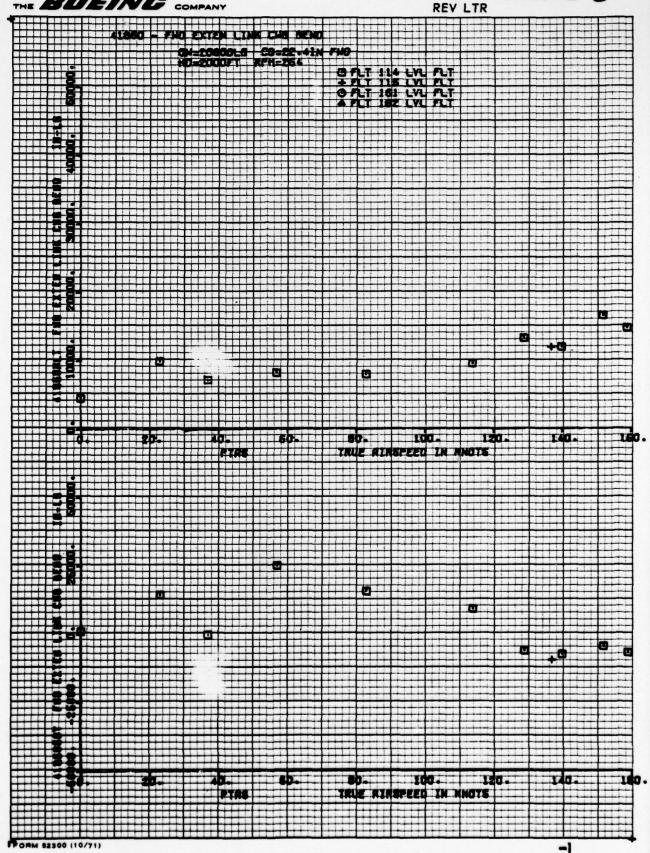
THE BOEING COMPANY DATE:

CHECKED BY:

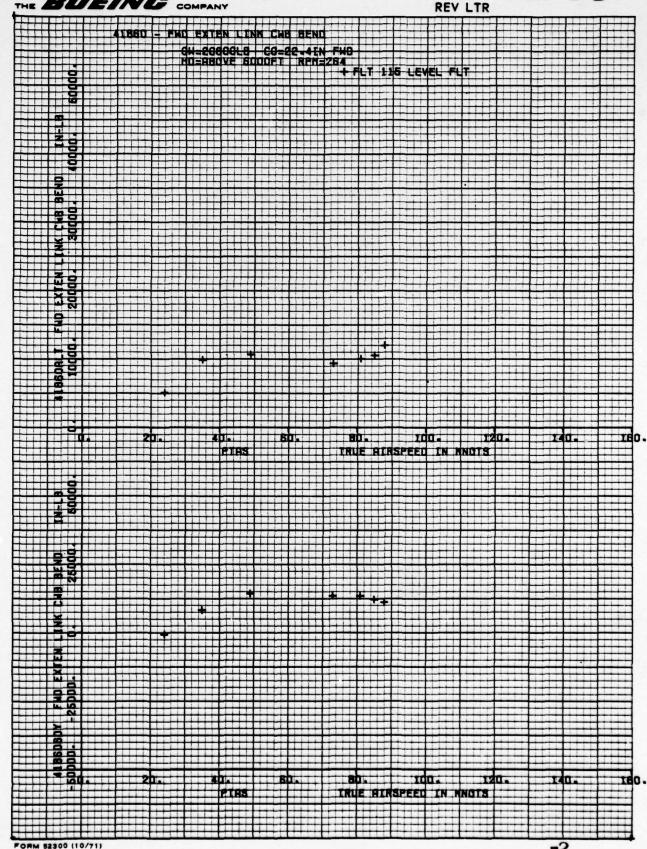
8/28/78

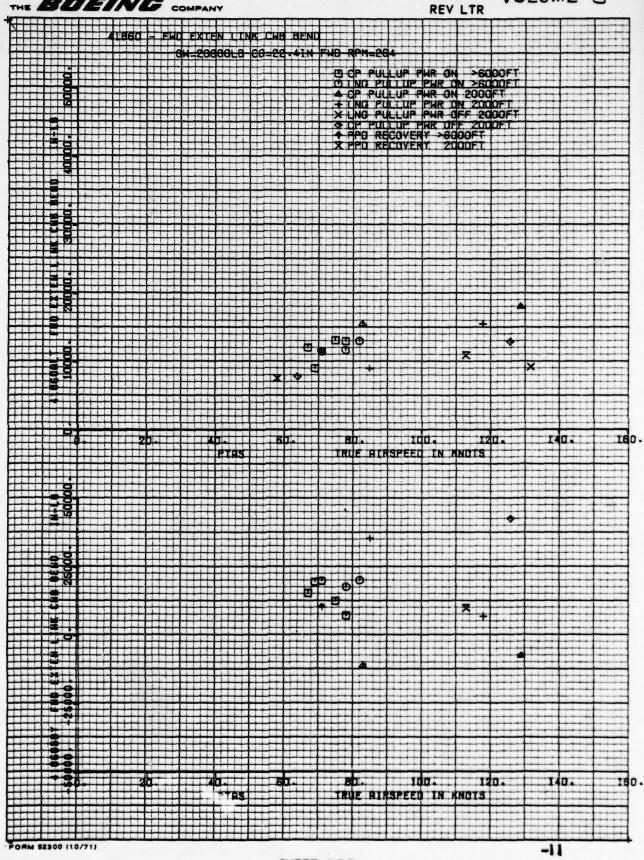
4.9 Forward Blade Extension Link Chord Bending

D210-11168-3 NUMBER TOVOLUME 3



D210-11168-3 NUMBER FOVOLUME 3





D210-11168-3 VOLUME 3

NUMBER THE BOEING COMPANY REV LTR 1860 - FHO EXTEN LINK CHE BEND 0H=20600L8 CO=22-4IN FHD RPH=264 THE THE PHE ON 2000FT
OUT THE PHE ON 2000FT

LT THE PHE OF 2000FT

THE THE PHE OF 2000FT

THE THE PHE ON >6000FT

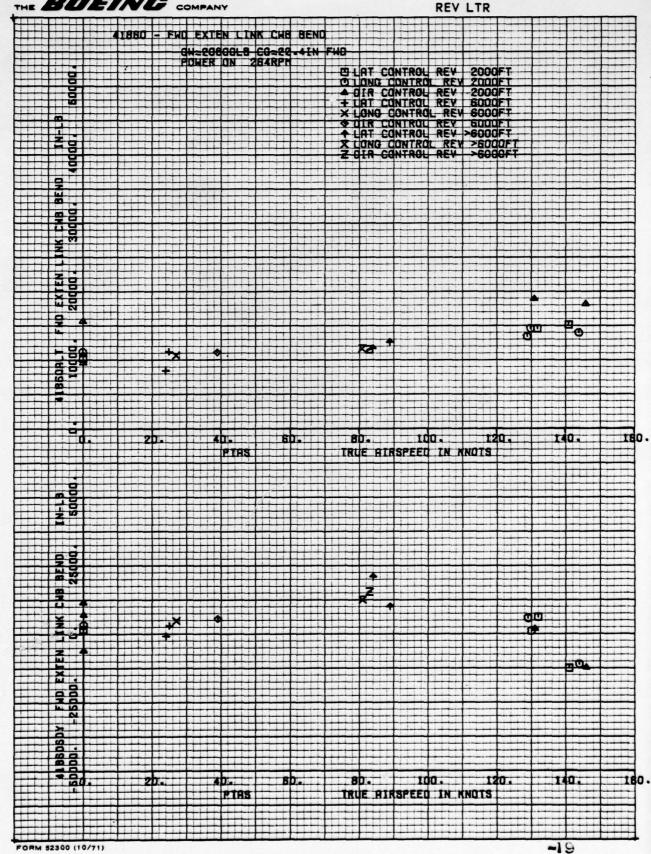
THE THE PHE OF >6000FT

THE THE PHE OFF >6000FT

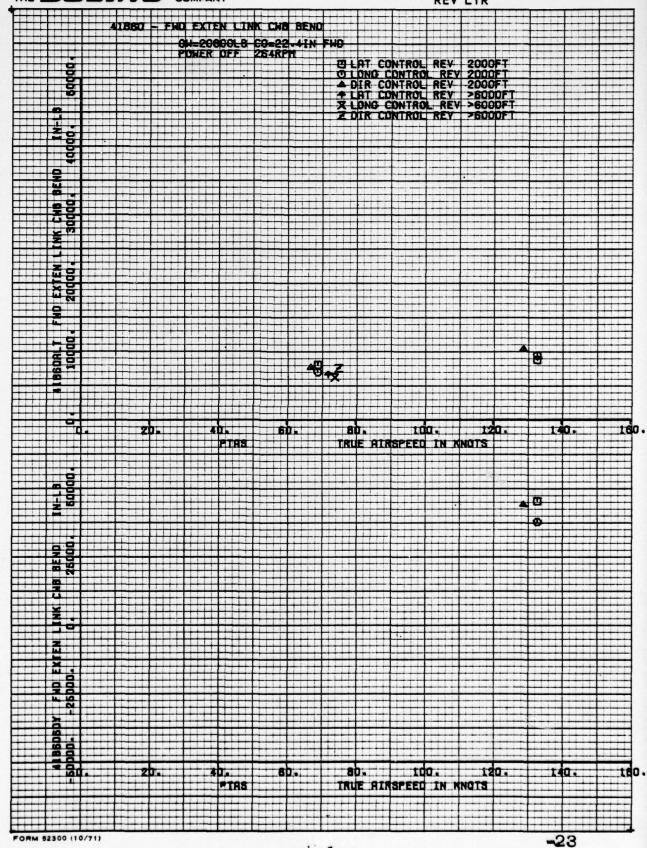
THE THE PHE OFF >6000FT U **0** 0 0 0 **A** 80. 100. 160. PIRS TRUE ALASPEED IN MNOTS 80. 100. 40. 180. TRUE AIRSPEED IN MNOTS PTAS

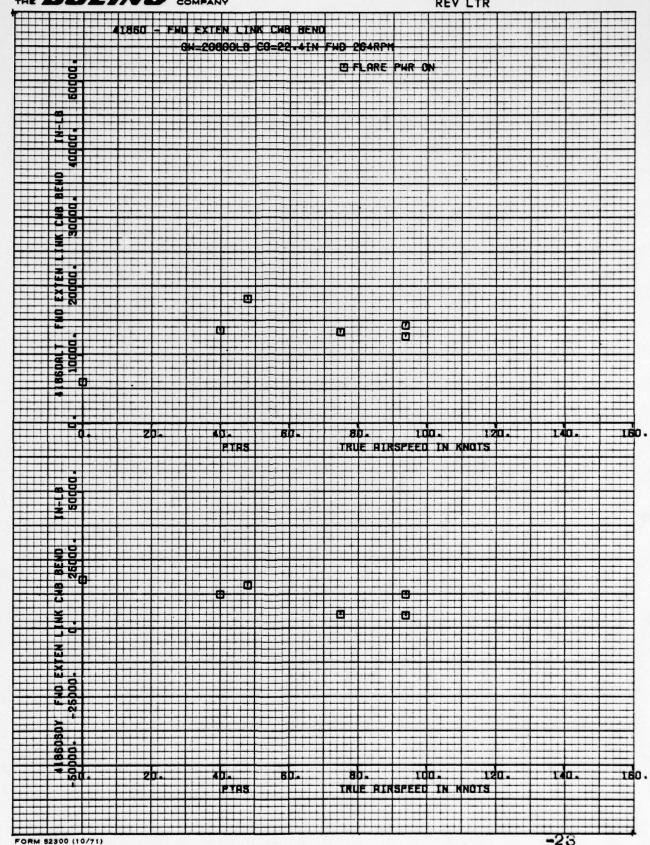
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FORM 52300 (10/71)

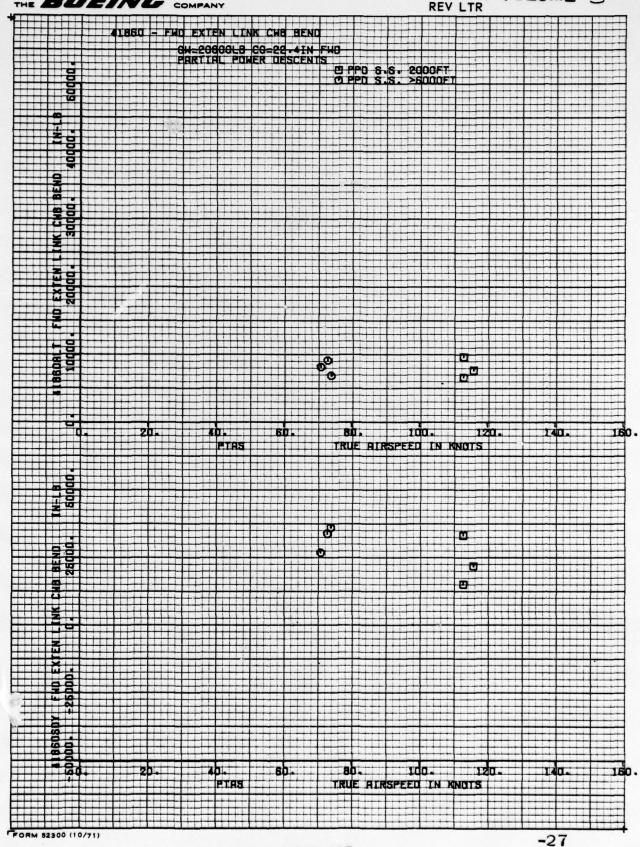


D210-11168-3
NUMBER FTVOLUME 3
REV LTR

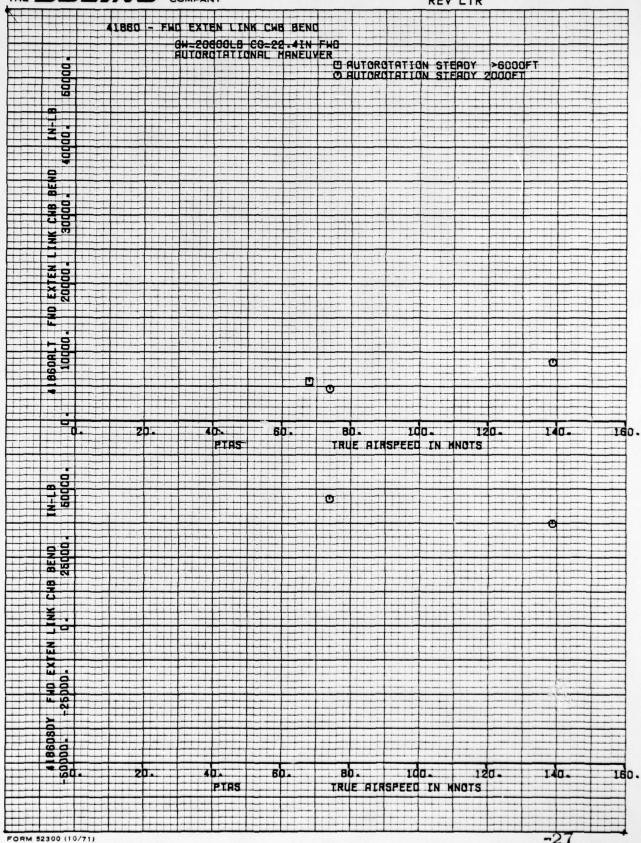




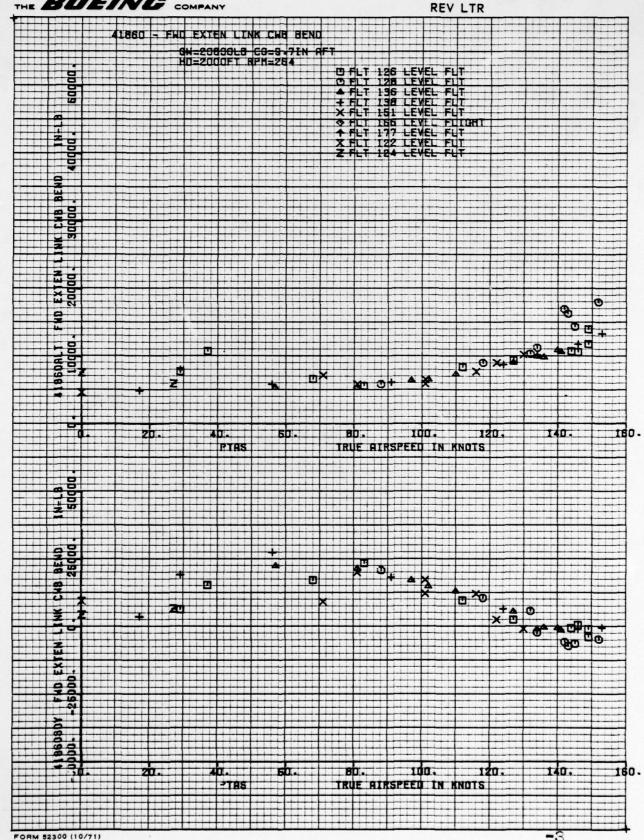
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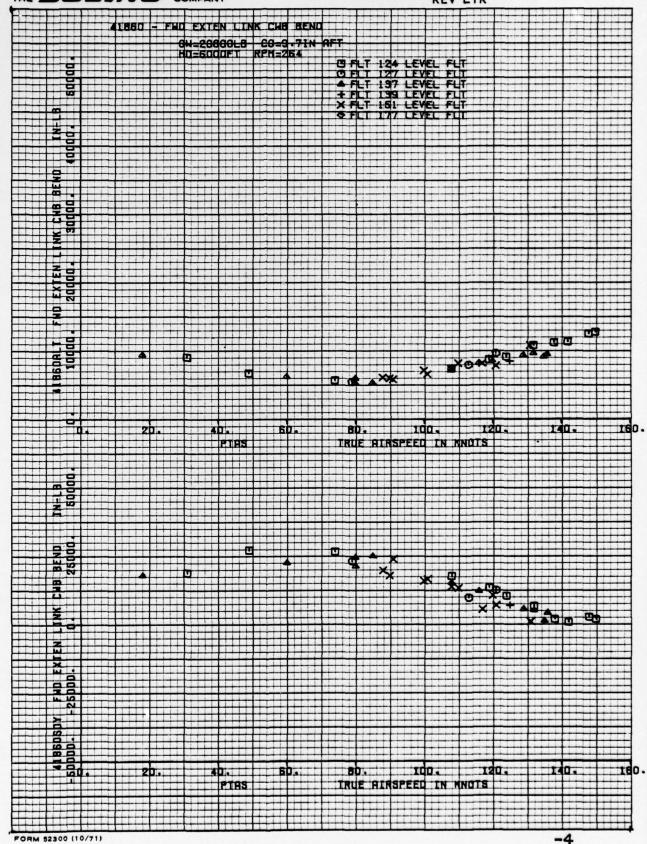


NUMBER F VOLUME 3
REV LTR

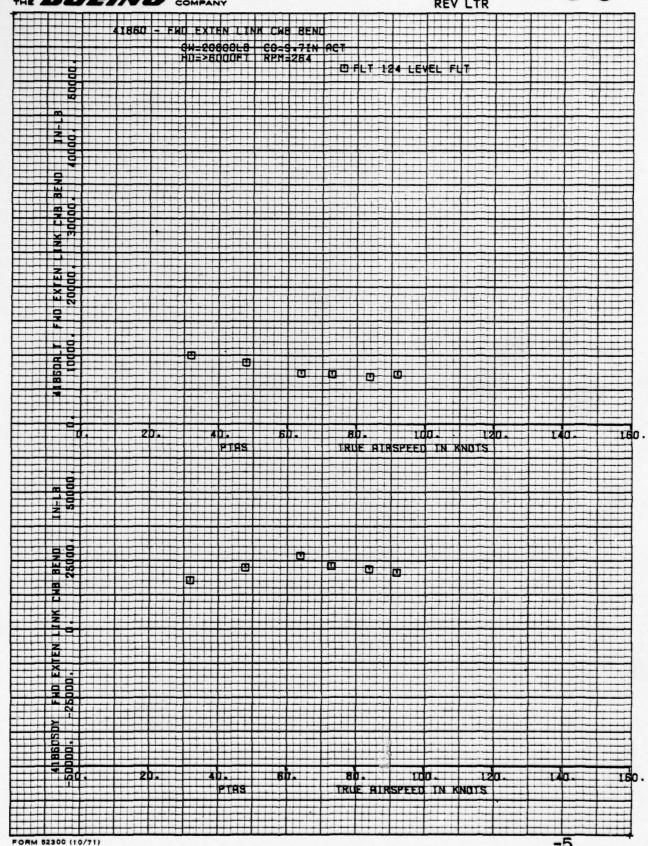


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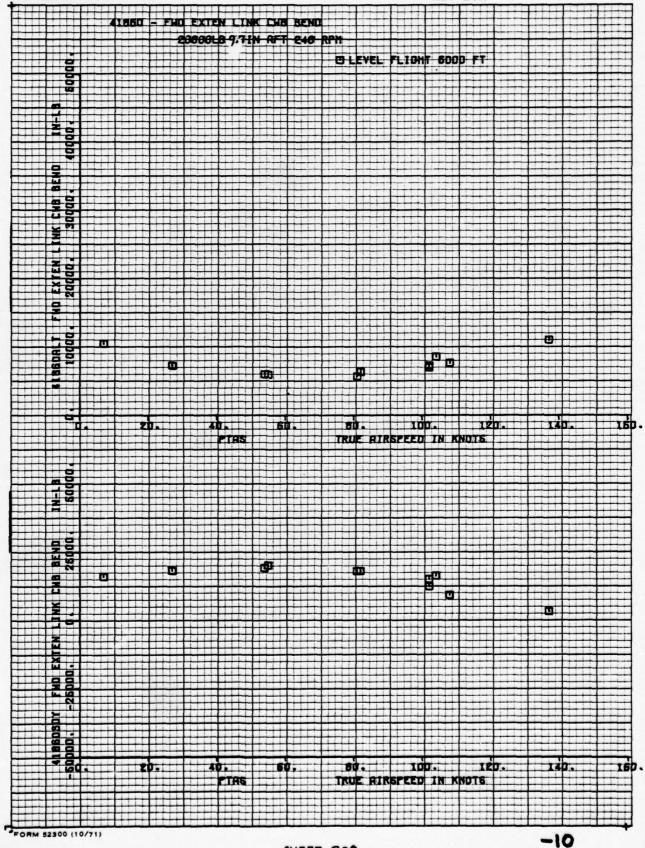




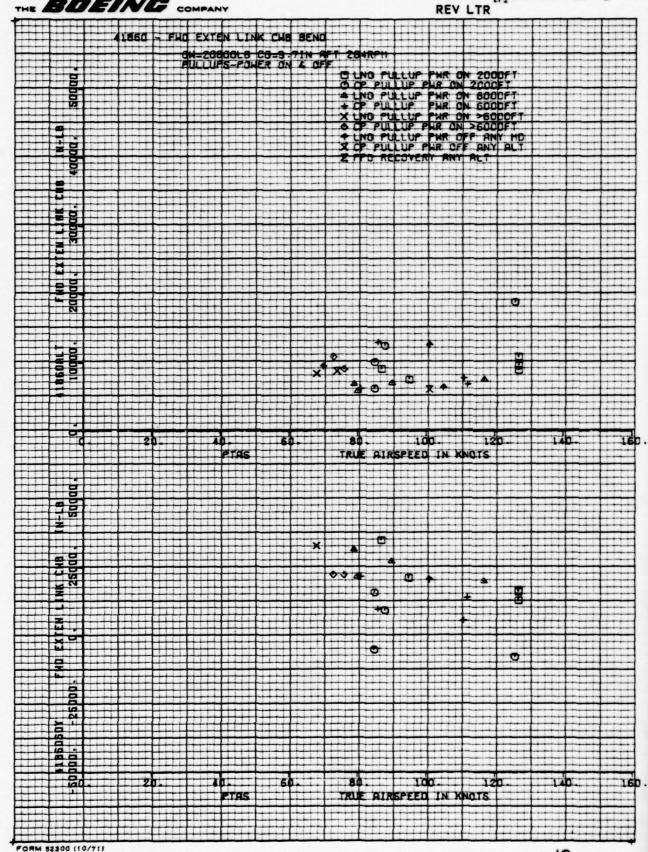
D210-11168-3 NUMBER TVOLUME 3



D21C-111€8-3 NUMBER FVOLUME 3 REV LTR



D210-11168-3 NUMBER WOLUME 3



D210-11168-3 NUMBER VOLUME 3

-16

THE BOEING COMPANY REV LTR 1860 - FHO EXTEN LINK CHE BEND CH-20000LB CO-0 7IN OF B AT TURN PHA ON 2000FT
C UT TURN PHA ON 2000FT

A AT TURN PHA ON 6000FT

+ UT TURN PHA ON 6000FT

X AT TURN PHA ON 6000FT

UT TURN PHA ON 5000FT

A IT TURN PHA OFF 6000FT

X UT TURN PHA OFF 8000FT

Z AT TURN PHA OFF 8000FT

Z AT TURN PHA OFF >6000FT

Y UT TURN PHA OFF >6000FT 9 0 0 \* 00 × 00 × 00 A 80. 100. 140. IBO. TRUE AIRSPEED IN MNOTS FTAS OD. 100-FTAS TRUE RIRSPEED IN MNOTE

FORM 52300 (10/71)

D210-11168-3 NUMBER REV LTR VOLUME 3

THE BOEING COMPANY REV LTR 1960 - FHO EXTEN LINK CHR RENO GH-2000GLB GG-G 71N AFT 264RFM CONTROL REVERSALS POWER ON SURT CONTROL NEV 2000FT
O LNG CONTROL NEV 2000FT

A BIR CONTROL NEV 2000FT

+ LAT CONTROL NEV 5000FT

X LNG CONTROL NEV 5000FT

A DIR CONTROL NEV 5000FT

X LNG CONTROL NEV >6000FT

X LNG CONTROL NEV >6000FT

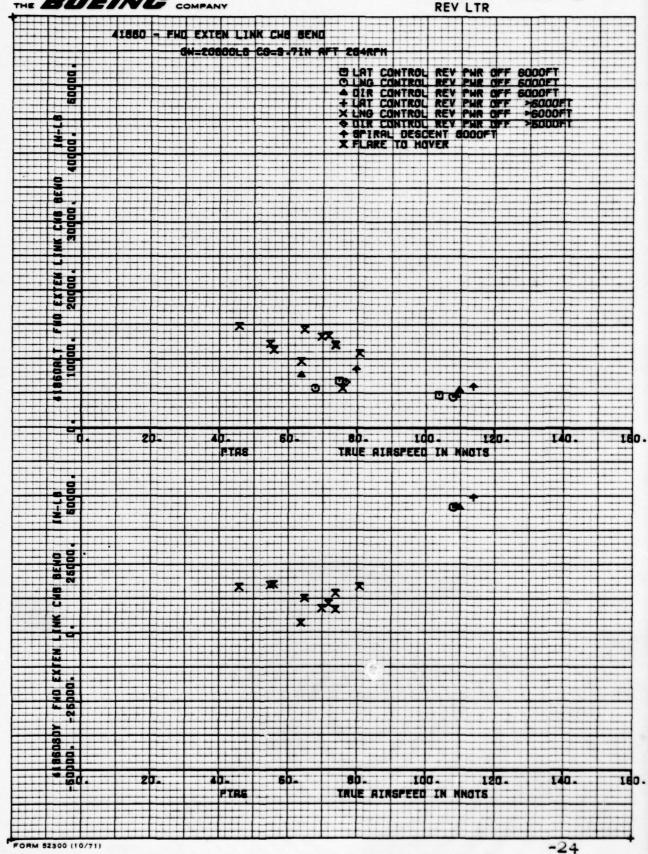
X LNG CONTROL NEV >6000FT

Z DIR CONTROL NEV >6000FT OX 80. 100. 1150 TRUE RIRSPEED IN KNOTS PTRS 100. 80. 160 . PIRS TRUE RIRSPEED IN MNOTS

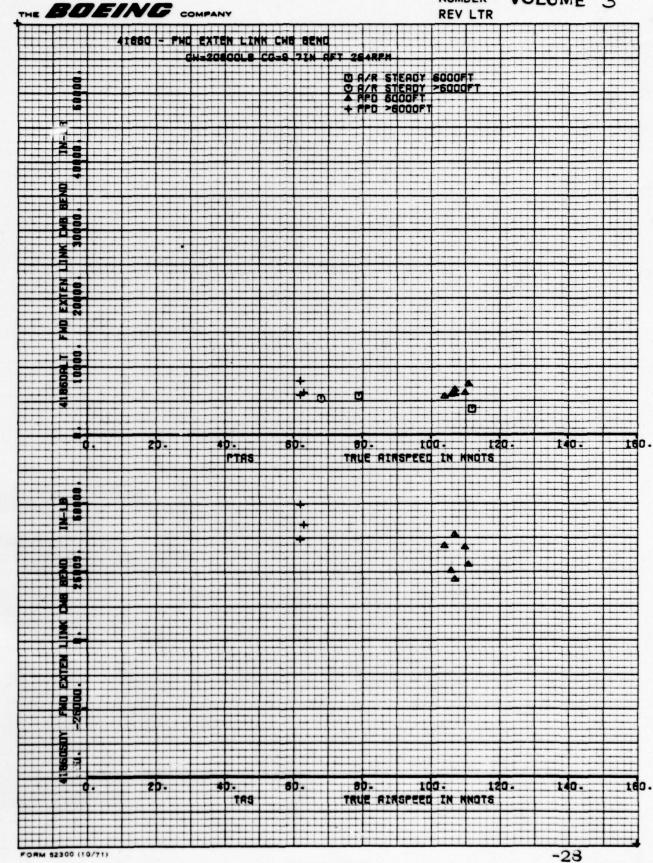
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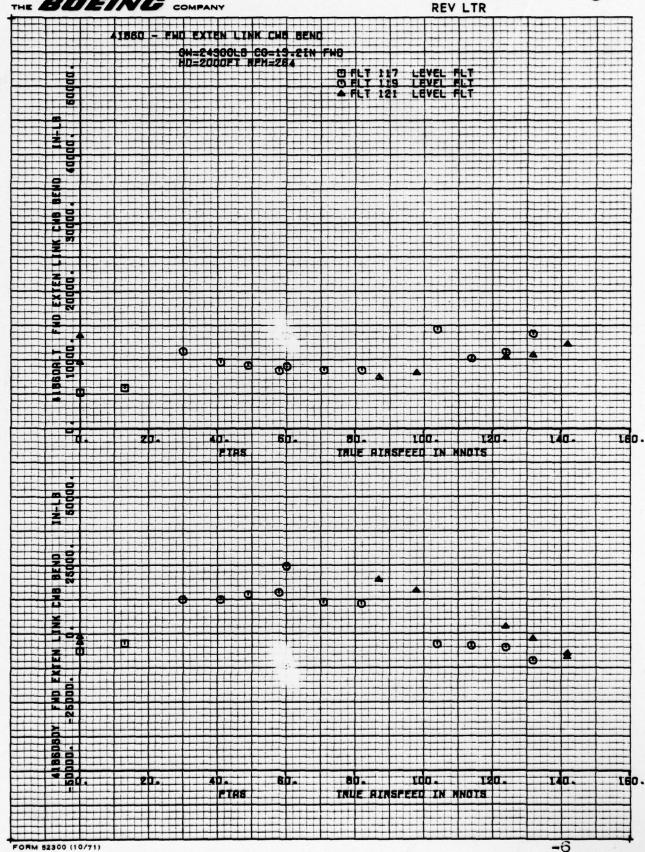
FORM 52300 (10/71)



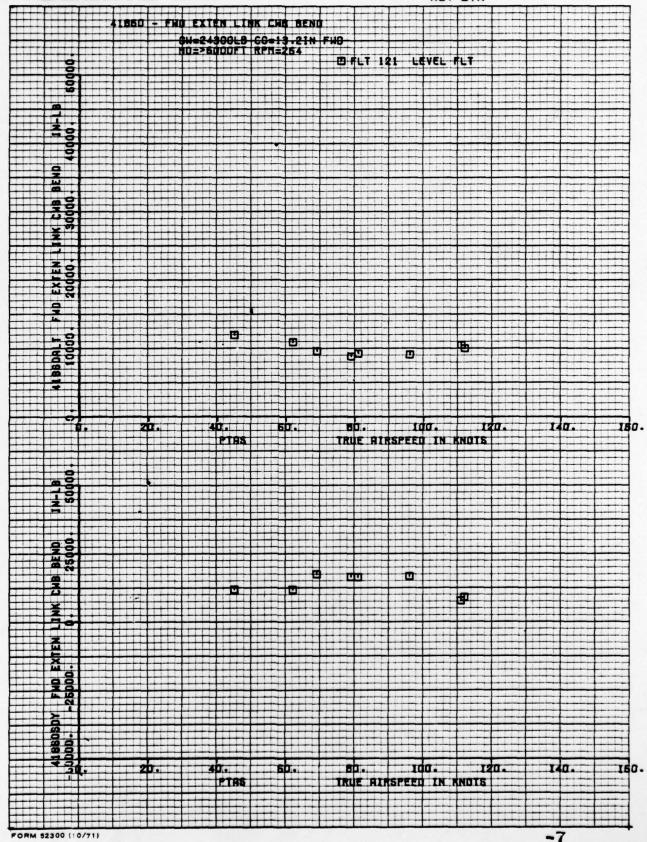


D210-11168-3

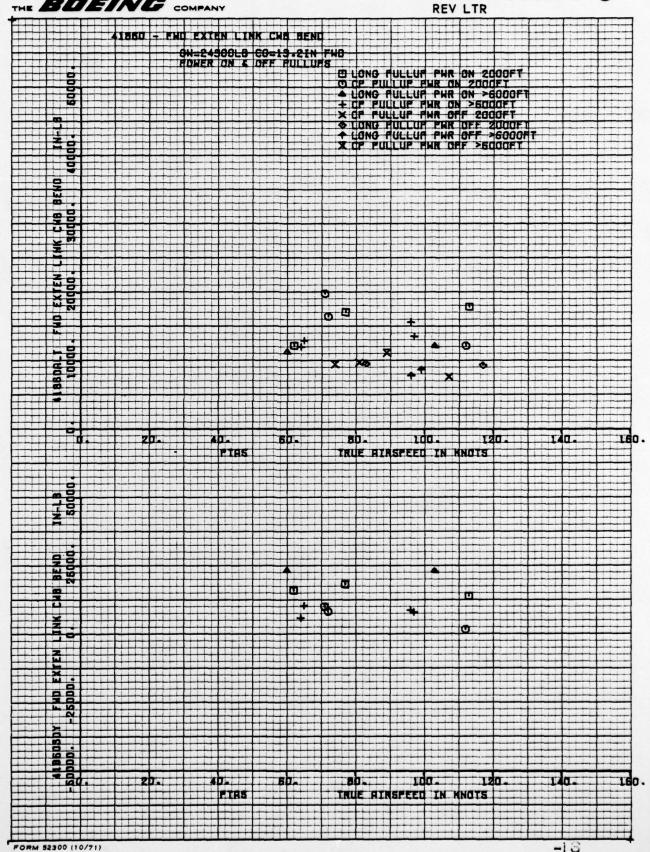




NUMBER REV LTR D210-11168-3



NUMBER FTVOLUME 3



D210-11168-3 NUMBER VOLUME 3

THE BOEING COMPANY

1860 - FHO EXTEN LINK CHE BEND OW-24300LB CO-13.21N FWO D LT TURN PHR ON 2000FT 60000 AT TURN PHR ON 2000FT

AT TURN PHR ON 26000FT

LIT TURN PHR ON 26000FT

X LT TURN PHR OFF 2000FT

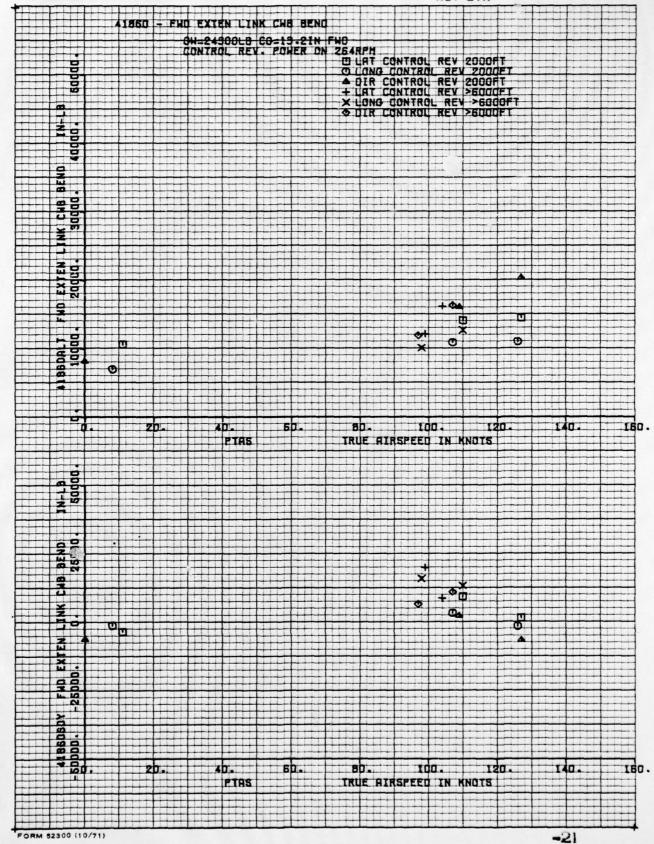
AT TURN PHR OFF 2000FT

LIT TURN PHR OFF 26000FT

X RT TURN PHR OFF >6000FT

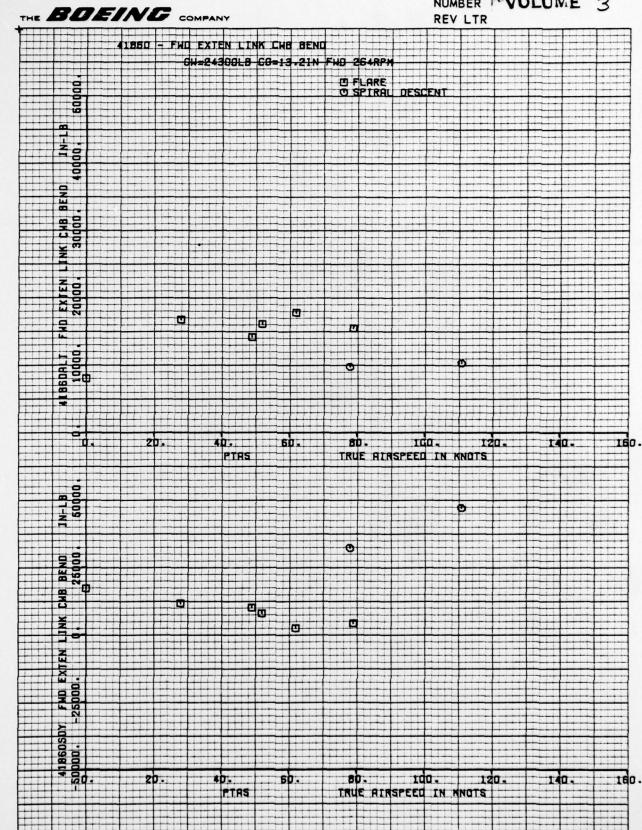
X RT TURN PHR OFF >6000FT 9 8 00 0 m . 8 ΦŒ × IBO. PTAS TRUE AIRSPEED IN KNOTS 0 O O 40. 80. 100. 120. 140. 160. PTAS TRUE AIRSPEED IN KNOTS FORM 52300 (10/71) -17

NUMBER FVOLUME 3 **REV LTR** 



D210-11168-3 NUMBER FEVOLUME 3

-25

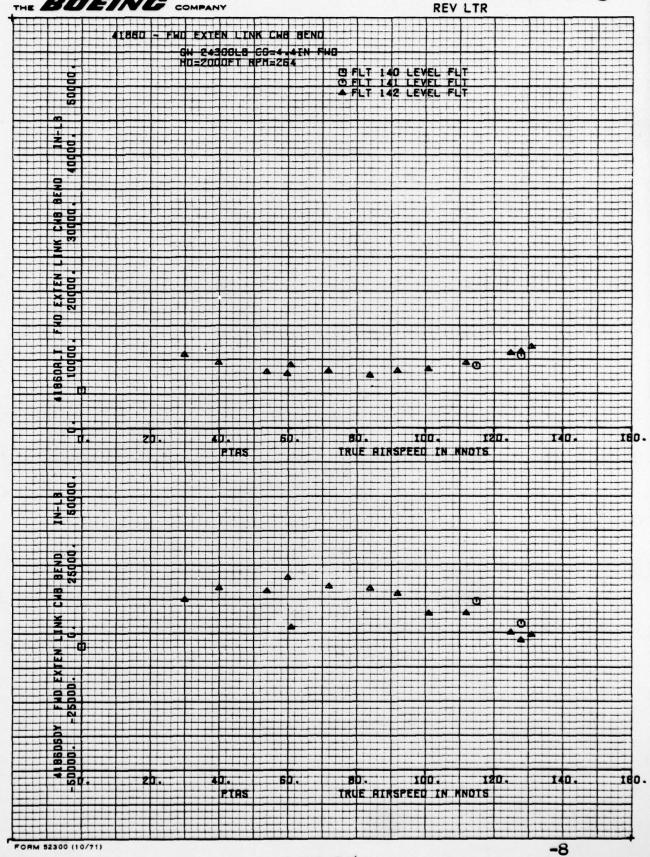


FORM 52300 (10/71)

NUMBER

THE BOEING COMPANY

REV LTR 1860 - FHO EXTEN LINK CHE BEND SM-24300LB CO-13.2IN FWD S PPD 2000FT
O BUTOROTATION ZOOUFT
A PPD >6000FT
+ BUTOROTATION >6000FT
X PPO REC 2600FT
S PPU REC >6000FT BEND NK CHB 30000 100 0 0 140. TEO. FTAS TRUE AIRSPEED IN MNOTS 0 87.3 EXT. 80. 100. 140. PTAS TRUE AIRSPEED IN MNOTS FORM 52300 (10/71)

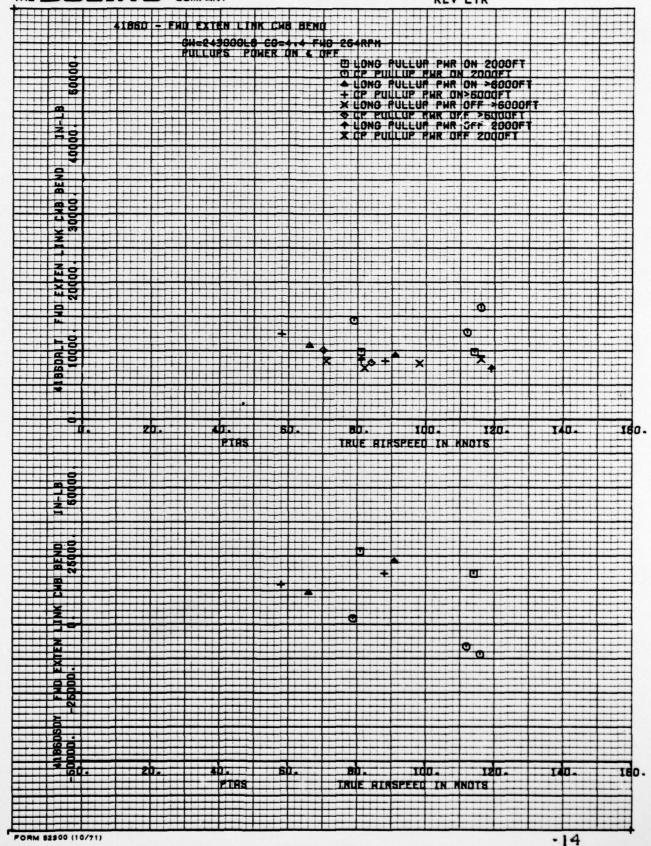


D210-11168-3 VOLUME 3

NUMBER **REV LTR** 

THE BOEING COMPANY FUO EXTEN LINK CUB BEND CH-24800LB GG-4.41N FHO HD=>6000FT 264RFH DIFLT 141 LEVEL FUT 100. 150. TRUE AIRSPEED IN KNOTS 100. 180. PTHS TRUE RIRSPEED IN KNOTS FORM 52300 (10/71)

NUMBER VOL



THE BOEING COMPANY REV LTR GH-24500L8 C9-4-4 FM0
FOHER ON 6 OFF TURNS 254RPM

O RT TURN PHR ON 2000FT

O RT TURN PHR ON 2000FT

+ RT TURN PHR OFF 2000FT

> RT TURN PHR OFF 2000FT

> RT TURN PHR OFF 2000FT

A LT TURN PHR OFF 2000FT

A LT TURN PHR OFF >6000FT

X LT TURN PHR OFF >6000FT

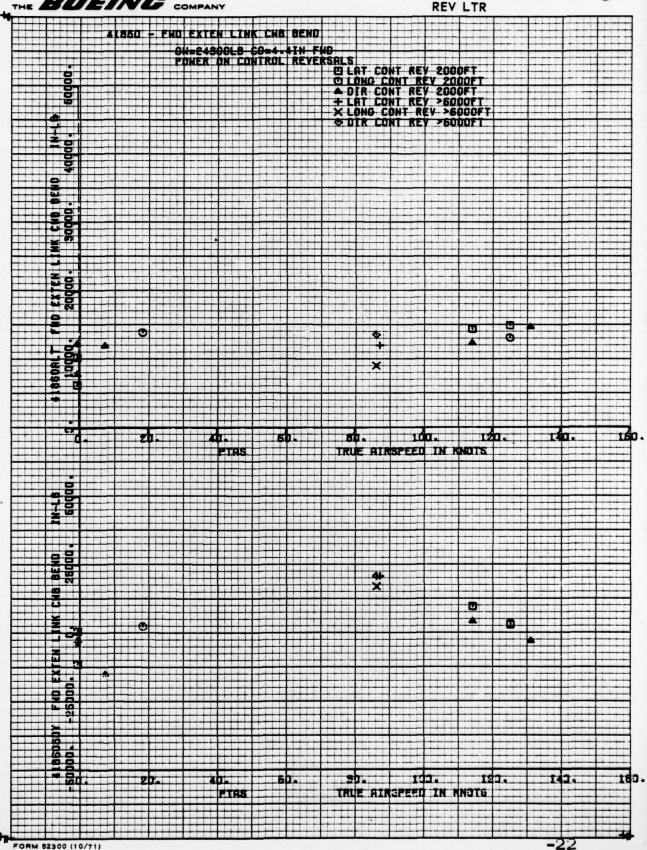
X LT TURN PHR OFF >6000FT - FHO EXTEN LINK CHE BEND 140 C C IEO. TRUE AIRSPEED IN KNOTS

PTAS

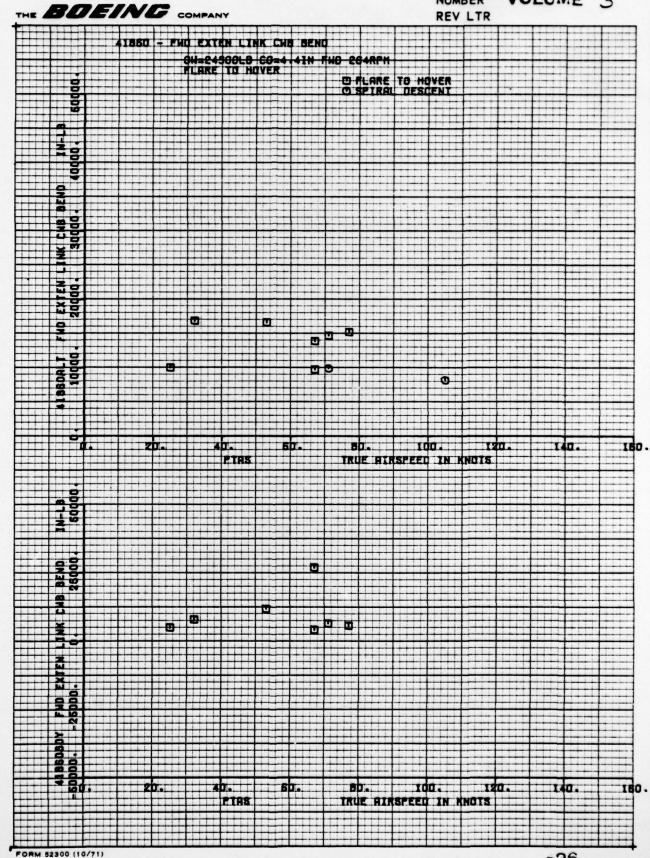
FORM 52300 (10/71)

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D210-11168-3 NUMBER ' VOLUME 3



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D210-11168-3 ER VOLUME 3

NUMBER VOLUME 3 THE BOEING COMPANY REV LTR ALBEO - FHO EXTEN LINK CHE BEND 04 24300L0 C0-4.4IN FNO 254RPN PPO & A/R O BIR STERDY T 9 600 100-120. 140. IBO -PTAS TRUE ALASPEED IN MNOTS O 0 U 0 •

PTAS

FORM 52300 (10/71)

80. 100.

TRUE AIRSPEED IN KNOTS

120.

140.

-30

180.

NUMBER D210-11168-3 REV LTR Volume 3

